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An Experiment in Poultry Marketing

The Petaluma Live Poultry Auction

by

J. C. Abbott and E. C. Voorhies

June 1951
Contribution from the
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Acknowledgments

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Appreciation is expressed for the helpful cooperation of the poultry producers in the area served by the Poultry Producers of Central California. Members of the wholesale and retail poultry trade in the San Francisco Bay area gave generously of their time and were most cooperative in furnishing information which materially contributed to the study.

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An Experiment in Poultry Marketing:

The Petaluma Live Poultry Auction

by J. C. Abbott[1/] and E. C. Voorhies[2/]

Introduction and Background

This study was undertaken as part of a research project in the marketing of farm products. For many years past, producers and others have been concerned about the conditions governing the marketing of poultry in California. Complaints by the poultrymen in the Los Angeles area have been especially bitter. These have turned pre-eminently on bargaining weaknesses in the producer position resulting from the absence of any central market place or adequate market information. This constitutes a serious obstacle to the setting up of appropriate price-grade relationships between different locations and different stages of progress from producer to consumer. Some of the results of work on these problems have already been published.[3/] Likewise, they have been the subject of papers and discussion at meetings of the California Poultry Council, the California Farm Bureau Federation, Poultry Producers of Central California, the Western Farm Economics Association[4/] and other bodies. This report offers a treatment of the same basic issues from the aspects most prominent in northern and central California generally and in Sonoma County and the San Francisco Bay area specifically. At the same time, this investigation is closely related to a study by the Western Livestock Marketing Research Technical Committee concerning the efficiency and usefulness of livestock auctions.

The scope of this report is confined within relatively narrow limits. It is based largely on sales data supplied by Poultry Producers of Central

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1/ Research Assistant in Agricultural Economics, University of California.

2/ Professor of Agricultural Economics, Agricultural Economist in the Experiment Station and Agricultural Economist on the Giannini Foundation of Agricultural Economics, University of California.

3/ Naden, Kenneth D. Poultry Pricing in the Los Angeles Area. Berkeley, 1949. 33p. (Calif. Agr. Exp. Sta. Mimeo. Report 101)

Naden Kenneth D. and George A. Jackson, Jr. Chicken Receipts and Per-Capita Consumption in Los Angeles, 1949. Berkeley, 1950. 9p. (Calif. Agr. Exp. Sta.) Processed.

Naden, Kenneth D. and George A. Jackson, Jr. Techniques and Methods Used in Western Regional Poultry Project W.M.-7: Retailing of Chickens in the Los Angeles Area. Berkeley, 1950. 16p. (Calif. Agr. Exp. Sta.) Processed.

Naden, Kenneth D. and George A. Jackson, Jr. "Quality of Fresh Chicken Meat. Causes of Down-grading of Chickens Handled in the Los Angeles Market Revealed in Representative Survey." Calif. Agr. Exp. Sta. California Agriculture, vol. 5, no. 2, Feb.1951, p.10-11, 16.

4/ Western Farm Economics Association. Proceedings. Twenty-third annual meeting, June 28, 1950. Pullman, Washington.

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4/ Western Farm Economics Association. Proceedings. Twenty-third annual meeting, June 28, 1950. Pullman, Washington.

California relating to the Petaluma Live Poultry Auction which was in operation from June, 1948 until April, 1951.

The operational procedure and achievements of the auction constitute the core of the study. From this base it approaches tentatively toward both producer and consumer. Leads furnished by the auction records were followed up with personal interviews. An attempt has been made to determine the outlines and limits of the marketing pattern in which the auction constituted an important element and exercised significant influence. This involved some research into types of production and the marketing requirements devolving out of them into significant consumer tastes and demands for poultry meat, and into the means available for their satisfaction.

Nevertheless, a detailed study of the wholesale and retail poultry business about the San Francisco Bay is still needed.1/ This report was not undertaken with such an objective. It deals with the San Francisco market, Bay area retailers and the country buyer as environmental to the auction, for the purpose of determining the function of the auction within the wider marketing system and formulating some statements as to the extent of its influence. Conclusions in this latter respect must remain tentative awaiting completion of the second part of the project.

The map on page 3 gives some indication of the significant distances and transportation relationships. The highways are marked together with major cities and towns. Mountain ranges running approximately north and south once constituted important barriers to communications between the Central Valley and the Coast and between the longitudinal valleys north of the Bay. One of Petaluma's original advantages in location lay in its river outlet permitting easy shipment to San Francisco or to Oakland, the railhead for the East. However, today modern road engineering has made truck travel easy and the highway system transcends most physical barriers to transfer over time and space. The percentages appearing after the names of the cities, towns or geographical divisions represent the proportions of the auction receipts originating in those areas (for example, Petaluma, 48.1; Hayward, 0.4; San Joaquin Valley, 3.7, etc.) during the first year of the auction's operations (see page 3).

Climatic controls, such as rainfall and temperature, have not the significance in the San Francisco Bay area and Sonoma County that they might have in some other parts of the country. In the Central Valley periods of extreme heat in the summer result in a certain mortality among poultry and would be an obstacle to long-distance hauls of birds confined in coops during the middle of the day. Natural controls show up most in the type of poultry kept most widely by California egg producers and the traditional preference patterns this has established among consumers. The predominance of the Leghorn fowl and the popularity of the white egg by reason of long usage owes much to the tendency of the colored breeds to accumulate body fat and go broody early under the stimulus of high spring temperatures, a characteristic from which the Leghorn is virtually immune.

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1/ A general discussion of the problems affecting poultry marketing in California was made during the late 1930's and the results will be found in Tinley, J.M. and E.C. Voorhies. Economic Problems Affecting Poultry Marketing in California. Berkeley, 1940. 204p. (Calif. Agr. Exp. Sta. Bul. 642)

FIGURE I
PETALUMA AS A MARKET CENTER

Ground conditions vary markedly and do not seem to affect the location of poultry enterprises. At Petaluma large flocks have been concentrated on steep hillsides and heavy adobe soils as well as on sandy loams.

Location of production in relation to centers of population with a high rate of consumption is the basic consideration in marketing analysis. In this respect the Bay area stands out for its clear-cut contrasts. The original center of the poultry industry was Petaluma in Sonoma County, much vaunted as "the egg basket of the world." Since the spanning of the Golden Gate, the distance to San Francisco, the largest city in central and northern California, has been cut to 40 miles of excellent highway. Large-scale poultry raising has spread more widely in later years and considerable subconcentrations have grown up north of Petaluma, northeast of Sacramento and in the central part of the San Joaquin Valley. The older established areas in the vicinity of Hayward and Santa Cruz have declined in relative importance. On the consumption side, the sharp increase in population during the war years has been the most notable feature. It had a disturbing influence on existing arrangements to equilibrate supply and demand. Additional distortion resulted from the imposition of price ceilings when many were prepared to patronize illegal sources when normal trade channels were unable to satisfy their desires. Nevertheless, although urbanization has extended into the East San Francisco Bay area and southward from San Francisco on its peninsula, many of the old market relationships still hold. The distributive system still stems from the San Francisco market which has become the price determination point for an urban population of more than three millions.

Two features characterize the consumption pattern of San Francisco and, to a lesser extent, the surrounding cities. The first is a very high per-capita consumption of poultry meat, primarily chicken. The second is a special preference for the fresh killed New York dressed bird with some emphasis on the Leghorn broiler. Such preliminary data as have been collected would indicate that the average consumption of poultry meat in San Francisco households in 1948[1] was 30 pounds per head. That for the whole country was estimated to have been 25.4 pounds, and for Los Angeles it was estimated at 16 pounds.[2] The total movement of poultry into San Francisco in 1948 amounted to 35 million pounds. Of this, approximately half were live and half dressed.[3]

Prices of poultry meat have generally been higher in San Francisco than in other parts of the country. For the characteristic by-products of the Sonoma County egg industry, the Leghorn hen and broiler, it has consistently offered an especially favorable market. Contributory factors in this include the high percentage of the population living in hotels or eating in restaurants and the

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1/ U. S. Bureau of Human Nutrition. Eggs and Poultry in City Diets. Washington, D.C. Commodity Summary 4, October 1949.

2/ This estimate may be inaccurate. See Naden, Kenneth D. and George A. Jackson, Jr. Chicken Receipts and Per-Capita Consumption in Los Angeles, 1949. Berkeley, 1950. 9p. (Calif. Agr. Exp. Sta.) Processed.

3/ Including supplies redirected to other cities, to ships in the harbor and to military establishments.

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Two features characterize the consumption pattern of San Francisco and, to a lesser extent, the surrounding cities. The first is a very high per-capita consumption of poultry meat, primarily chicken. The second is a special preference for the fresh killed New York dressed bird with some emphasis on the Leghorn broiler. Such preliminary data as have been collected would indicate that the average consumption of poultry meat in San Francisco households in 1948 1/ was 37 pounds per head. That for the whole country was estimated to have been 25.4 pounds, and for Los Angeles it was estimated at 16 pounds. 2/ The total movement of poultry into San Francisco in 1946 amounted to [illegible] million pounds. Of this, approximately half were live and half dressed. 3/

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1/ U. S. Bureau of Human Nutrition. [illegible]

2/ This estimate [illegible] Berkeley, 1950. 3p. (Calif. Agr. Expt. Sta.) Mimeographed.

3/ Including supplies redirected to other areas, to ships in the harbor and to military [illegible].

continuance of European tastes and attitudes in a large proportion of the city's inhabitants. Both favor the purchase of the chicken plucked without evisceration or eviscerated by the store employee at the time of sale. Professional cooks and housewives, accustomed to take a certain amount of trouble in order to prepare a tasty meal, prefer the chicken whole. The restaurateur and the small family find in the broiler and lighter type of hen respectively, a convenient main course for one meal. However, it is becoming increasingly noticeable that a rather larger type of bird is gaining popularity over the traditional Leghorn broiler.

This preference for the New York dressed bird is the more noteworthy in that the general trend for the country points toward increased purchasing of chicken packaged or cut up into parts. Flavor is jeopardized and higher costs are incurred for the sake of personal convenience in preparation, dependable quality and homogeneity of product. This movement has gone much further in Los Angeles and in southern California than in San Francisco.

Thus, the Sonoma County poultryman is fortunate in having a natural market as well adapted to the type of bird he normally sells. Up to the last decade or so, the chief emphasis here was on eggs. Pre-eminent in this enterprise was the White Leghorn. Its freedom from broodiness is a trait originally developed by the Romans--their markets were the first to be supplied with large white eggs in bulk and for two thousand years the Leghorn remained the only breed with a consistently good laying record. This popular breed of Mediterranean origin found a new home in the comparable climate of California. Even after the last half century of scientific advance in poultry breeding, egg producers of Sonoma County, California, are still overwhelmingly loyal to the Leghorn with its high egg yield proportionate to its feed intake. Producers have become more conscious of this advantage as local feed requirements outran supplies and California grain and feed resources had to be supplemented via the long haul from the Middle West and elsewhere. Second only to his interest in egg sales, the Petaluma poultryman looks for an opportunity to dispose of the associated by-products, young Leghorn cockerels, and hens culled from the laying flock.

Fryer production as a specialized industry is fairly new to California. Only during recent years has any considerable proportion of the poultry community in the North Bay area looked to the meat bird as a principal source of income. High meat prices, during the war when supplies were limited, and high incomes favored the development locally of an industry which had been established much earlier on the East Coast and in southern California where the urban population had grown rapidly and poultry specialists were not confined to egg production. New Hampshires, Barred Rocks and Cornish Crosses are among the favored meat bird breeds and, together with the dual-purpose Austra White, have given a new aspect to the range of poultry marketed in the Bay area. Demand for the heavier meat bird is strong and specialized raisers are still relatively few. More progress has been made in this respect in the Central Valley where the large meat packing houses have made arrangements with producers facilitating in many cases the provision of capital and guaranteed sales outlets. North of the Bay regular marketing procedures for this type of bird have yet to be established. In particular, the egg producer who fills spare houses with broilers and fryers as a supplementary venture continues to seek a suitable market. It is this type of production that has posed the most difficult problems.

continuance of European tastes and attitudes in a large proportion of the city's inhabitants. Both favor the purchase of the chicken plucked without evisceration or evaporated by the score carcasses at the time of sale. Professional cooks and housewives, accustomed to take a certain amount of trouble in order to produce a tasty meal, prefer the chicken whole. The restaurateur and the casual family find in the broiler and lighter type of bird respectively, a convenient main course for one meal. However, it is becoming increasingly noticeable that a rather larger type of bird is gaining popularity over the traditional bantam cockerel.

This preference for the New York dressed bird is the more noteworthy in that the general trend for the country poultry keeper increasingly specializing in the production of eggs [illegible] are interested for the sake of personal convenience in preparation, dependable quality and homogeneity of product. This movement has gone much further in Los Angeles and in southern California than in San Francisco.

Thus, the common farmyard poultryman is fortunate in having a ready market as well adapted to the type of bird he normally rears. Up to the last decade or so, the chief emphasis here was on eggs. Improvement in this art choice was the little leghorn. Its freedom from broodiness is a trait originally developed by the chicken--hatch machine which were the first to be supplied with larger white eggs in bulk and for two thousand years the leghorn remained the only breed with a consistently good laying record. This popular breed of the Mediterranean originated a new lease in the cosmopolitan climate of California. Even with the last half century or so, substantial advance in poultry breeding, egg production of Southern County, California, are still overwhelmingly based on the leghorn with its high egg yield in proportionate to its feed intake. Producers have become more conscious of this advantage as local feed requirements compare as a California grain and feed prices are had to be supplemented via the long haul from the Middle West and elsewhere. Second only to this interest in egg sales, the Pacific Coast offers lucrative fields for an opportunity to dispose of the considerable by-product, young leghorn cockerels, and hens culled from the laying flock.

Egg production as a specialized industry is fairly new to California. Only a few recent years has any considerable proportion of the poultry economy in the North Bay area looked to the meat bird as a principal source of income. Both meat purpose, during the war when supplies were limited, and high income from the development locally of an industry which had been established more earlier on the East Coast and in southern California where the population had grown rapidly, as well as low egg prices were not conducive to egg production. New Hampshire, Barred Rocks and Cornish Crosses are among the favored meat bird breeds and, together with the dual-purpose, Austra White, have given a new support to the purse of poultry marketed in the Bay area. Demand for the broiler meat bird in Europe and specialized markets are still relatively low. More progress has been made in this respect in the Central Valley where the large meat packing houses have made arrangements with producers installing in many cases the provision of capital and guaranteed sales outlets. Most of the Bay counties are attractive propositions for this type of bird have yet to be considered. In contrast, the egg producer who fills some lucrative and fresh as a egg laundry vendors continues to seek a sales outlet. In this type of production that has posed the most difficult problems.

Existing channels of trade are essentially the children of individual enterprise and historical growth. No attempt has been made to provide special marketing facilities for poultry or to guide the process of natural development beyond the provision of the Federal-State Market News Service and some sanitary regulations at the processing and retail stages.

Normally, central California poultrymen with birds for sale would be able to choose between the following outlets. They could sell directly to individual consumers, or to hotels and restaurants so far as such contacts could be established. However, San Francisco chefs preferred to deal with large wholesalers able to meet precisely formulated demands at the exact convenience of the buyer. Well-known ranches in areas where flocks were fairly concentrated would be approached regularly by local dealers or hucksters who lived in their midst, local retailers who were well acquainted with producers in the district and professional buyers for the large San Francisco wholesalers. The latter were interested primarily in large, uniform lots of standard quality and, so far as the smaller producers were concerned, preferred to act through hucksters who would assemble full loads and truck them into the city plants. Poultrymen were free to do this themselves, but unless there was some prearranged understanding as to the basis of the sale, they might find themselves in a very weak position for bargaining.

In effect, Petaluma poultrymen were approached regularly by prospective poultry buyers and the ensuing competition for business explains why no organized marketing machinery has yet been established. Sales of live poultry have not constituted a major source of income to the industry in this area where producers have been preoccupied with the movement of eggs. Hens and broilers were disposed of with a minimum of trouble, and producer complaint has been directed not so much against the absence of any opportunity to sell but the handicaps farmers bore in bargaining over quality and price.

Their chief aid lay in recourse to the reports of San Francisco wholesale prices published by the Federal-State Market News Service. In a maelstrom of conflict, producers clung to these for stable guidance. All the prerequisites for an appearance of veracity militated in their favor. In consequence, most of the deals concluded in the area took the San Francisco quotation as a base subject to deductions for conventional margins, transport costs, shrinkage loss and deviations in quality from that described in the San Francisco report. This latter was a frequent source of argument. Having compromised on the base price, dealers generally attempted to downgrade as many birds as possible as part of the bargaining process and to make deductions for inferior quality. It was a frequent observation on the part of producers that this type of grading was purely arbitrary, dependent almost entirely on relative bargaining power on the day of sale. Before the dealer's truck reached the premises of the next intermediary the birds graded down at the ranch would be put back with the regular run. The whole process of argument would begin again between hucksters and wholesaler. Hucksters usually claimed 1½-2 cents per pound for assembly and haulage and tried to pass on as many birds as possible at the going price for the day. The Market News prices for No. 1 quality birds purports to refer to federal grades "AA" and "A". "B" and "C" would be No. 2 quality. In most transactions such distinctions were academic. These grades were not part of everyday parlance in the trade, and parties to a deal would have no precise grade descriptions for application to the different classes of birds they handled.

Apart from this vagueness in application, which is more the result of entreprenurial neglect than a fault of the Market News Service itself, two other serious obstacles have stood in the way of its becoming a satisfactory base for efficient price making. On the one hand, copies of the Market News Service reports delivered by mail come into producers' hands one or two days late. The latter are unlikely at the time of sale to be aware of up-to-the-minute trends and have to bargain on the basis of the previous day's dealings. This handicap is most crippling on Monday morning when producers have still only Friday's transactions for reference. Yet, Monday is precisely the day when poultry buyers do most business. The professional buyer generally acquaints himself with the current market feeling either by telephone or by personal contact with those of like concern.

The second weakness lies in the tenuous relationship the published price bears to the real price even on the day the report was made. The situation is superior to that prevailing at Los Angeles, where only a small percentage of the total volume of transactions ever comes within the purview of the reporting service, but some of the inadequacies noted there[1] were present in similar form at San Francisco. Here, too, the prices published only refer to purchases at the plant by large wholesalers and give no information as to the level at which processor-retailers buy though this could be of vital concern to poultrymen dealing with such outlets. Likewise, only a few buyers are contacted each day and some of these are themselves in the habit of buying on agreement with prices based on the reports and new marketing developments and are, thus, in no position to say what the going price of the day really is.

An important difference between the San Francisco and Los Angeles poultry markets is that the former is far more concentrated. The bottleneck which is noteworthily absent in the southern California metropolis, by its very nature a conglomeration of decentralized urban units, is characteristic of the San Francisco market where it is estimated that 90 per cent of the poultry going into consumption there passes through the hands of three or four large processor-wholesalers situated within a few blocks of each other about the produce market.

Nevertheless, this situation presents its own difficulties. The Market News report depends on the daily cooperation of three or four firms and calls for rare tact and perseverance on the part of the Market News reporter. In practice he can be as much embarrassed by a politic waiting for his own conclusion followed by immediate acceptance of it as the price for the day, as by intentional misquoting for the purpose of deceiving rival buyers. The first leaves him in the invidious position of having to determine the price he should report. The second suffers from the weakness that stated prices have to be discounted according to past experience of trade bias. There are manifest disadvantages to both.

The publication of prices paid at Petaluma and Stockton for poultry sold under the auspices of Poultry Producers of Central California serves as a very valuable supplement to the San Francisco data in providing inland prices for

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1/ Naden, Kenneth D. Poultry Pricing in the Los Angeles Area. Berkeley, 1949. 33 p. (Calif. Agr. Exp. Sta. Mimeo. Report 101)

Away from this vagrancy in marketing, which is more the result of [illegible] conditions than a fault of the dealers, some surplus itself, two other marketing obstacles have stood in the way of its becoming a satisfactory base for efficient price pricing. On the one hand, owing to the Market News Service, reports delivered by mail come into producers' hands one or two days [illegible] the [illegible] to bargain on the basis of the previous day's dealings. [illegible] transactions for rebargaining. Yet, Monday is practically the day when [illegible] buyers do most business. The professional buyer generally requests [illegible] with the current market trading either by telephone or by personal contact with those of like concern.

The second weakness lies in the famous reluctanctly the publication [illegible] to the price paid even on the day the report was made. The attraction is [illegible] to that prevailing at Los Angeles, where only a small portion of the total volume of transactions ever comes within the purview of the reporting service, for some of the transactions notwithstanding are present in similar form at San Francisco. Here, too, the price published only refer to purchases at the plant by large wholesalers and a very information as to the level at which [illegible] transactions are made is of vital interest to producers [illegible] with such [illegible]. Likewise, only a few [illegible] and some of these have [illegible] to the Board of [illegible] agreement with prices based on the reports [illegible] production [illegible] and [illegible], in no position to say what the [illegible] prices or the day really is.

An important difference between the San Francisco and Los Angeles poultry markets is that the former is far more concentrated. The [illegible] market is [illegible] in the southern California metropolis, by the very [illegible] a concentration of decentralized urban units, is characteristic of the San Francisco market. Here it is estimated that 90 per cent of the poultry [illegible]

Nevertheless, this situation presents its own difficulties. The Market News report depends on the daily cooperation of three or four firms and calls for care, tact and perseverance on the part of the Market News reporter. In practice it can be as much embarrassed by a politic waiting for his [illegible] following [illegible] as the price for the day, as by intentional misquoting for the purpose of deceiving rival buyers. The first leaves the Market News position of having to determine the price to be [illegible] report. The second suffers from the weakness that slanted prices have to be discounted according to past experience of trade bias. There are manifest disadvantages to both.

The publication of prices paid at Italians and Scandinavian poultry sold under the [illegible] of Poultry Producers of Central California serves as a valuable supplement to the San Francisco data in supplying [illegible] prices for

comparison.1/ It is, thus, possible to check type and grade price relationships even though the equilibrium level may be lower than that attained in San Francisco. The difference between these levels provides some measure of the margin taken out for transport, shrinkage and entrepreneurial risk. In many respects the position occupied by Poultry Producers of Central California, a farmers' cooperative, is quite unique. Its growth reflected the need for an organization to ship out of the state the eggs produced in Petaluma (and near-by sections) surplus to the requirements of the Pacific Coast populations of years ago. Beginning in 1926 it reinforced this position by shipping in grains and protein supplements necessary to augment local production. Dependence on its assistance in marketing eggs during the flush season especially when large quantities were held in storage, enabled it to achieve a dominant position in the egg market. It has long acted as a price leader for the rest of the trade. The key to this development has lain in the need for an organization to dispose of a surplus which could not be marketed locally.2/ The comparable cooperative in southern California failed to achieve parallel status partly because the increase in egg supplies never outran (except for very short periods) the rise in population. Poultrymen in a deficit area did not experience the same difficulties in marketing their produce.

Much the same conditions have been experienced by the Poultry Department of Poultry Producers of Central California. Of secondary importance to most members, the type of poultry turned out by an essentially egg producing industry is not such as to warrant extensive transportation and distribution to distant population centers. Most egg producers have, however, felt the need for a convenient and trustworthy outlet through which they could dispose of cockerels and older hens no longer economical as layers. This feeling gained added weight with the recent turn towards the meat bird as such and recognition that the chicken has become an integral part of the average American's diet. Producers looked to the cooperative for the paternal assistance befitting one which had grown so sturdy on their patronage. In 1926 Poultry Producers set up a poultry department to purchase and process members' poultry. Morally obliged to accept whatever types and qualities of bird members offered for sale, it labored under severe handicaps in competing against more flexible enterprises devoid of such obligations. It was under such circumstances that the auction plan was proposed early in 1948. Poultry Producers recognized that the current shape of demand for poultry meat in San Francisco was such as to offer higher prices relatively for fresh New York dressed birds than could be expected anywhere else in the country. To ameliorate the conditions under which these special demands and supplies came together, Poultry Producers established the Petaluma Auction.

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1/ From November 1949 the Federal-State Market News Service has published a new series from Fresno, Paying Prices for Live Poultry F.O.B. Ranch, San Joaquin Valley.

2/ This position no longer holds good. From 1938 California has been a net importer of eggs.

Origin

The institution of an auction market at Petaluma on June 15, 1948 marked the first significant occasion of the employment of this method of disposal of poultry in America west of the Mississippi. This is the more remarkable in view of the long-standing concentration of commercial poultry in California and the continued association of auction sales with poultry marketing both in the eastern United States and in Europe. Admittedly, specialists in the production of laying stock and meat birds have rarely favored this type of outlet. Substantial businesses of this character have generally preferred to make direct sales through advertisement and personal recommendation. The local auction has, however, in England for instance, provided an established opportunity for vendors of small and varied lots to present their produce at markets where buyers foregather at regular intervals and bid against each other competitively. These auctions may be found all over England situated in local centers not more then twenty miles apart.

Many factors would seem to favor the successful establishment of an auction at Petaluma. It is the geographical and economic center of an extremely dense concentration of poultry flocks specifically directed towards egg production on a large scale. Large quantities of poultry meat are turned out as the natural by-product of the industry. Egg production is dominated by the White Leghorn breed of fowl. There is, therefore, a seasonal outflow of young Leghorn cockerels, known locally as broilers, and a fairly continuous culling of hens. Many years of keen competition have pointed the poultryman's skill in producing eggs at the minimum cost. Since expenditures on feed supplies and labor constitute by far the most weighty element in his cost structure, and since this is a function of the number of birds in the flock, there has been a marked trend towards continuous culling as birds cease to be profitable layers. Albeit that proceeds from the sales of eggs are their major source of income, producers have sought to minimize the depreciation on their working capital equipment, so to speak, by selling culled hens for the highest possible price.

The individual rancher absorbed primarily in the business of egg production is at a disadvantage in his dealings with the traveling huckster "armed" with special contacts and "grapevine" information. Fair marketing conditions under which sources of information and relative bargaining power could be more evenly matched demand a central market place where birds could be graded impartially and buyers could be brought together in open competition. Since Poultry Producers of Central California already bought eggs from and supplied feed to its many members in this area, much pressure was put upon it to provide a suitable outlet for culled hens and broilers. For its own part, a prevailing opinion was that it had some obligation to its members in this respect.

Yet, direct purchase from members had not proved satisfactory in the past. The San Francisco market offered good prices for fresh-killed birds of all kinds, but the Association's poultry department was always handicapped by extreme fluctuations in the volume of the particular types and grades of bird offered. This impeded the maintenance of appropriate retail outlets and put the Association at a disadvantage in competing with smaller buyers aided by more flexible trading policies, low overhead costs, and labor teams in which members of the family did most of the work. There was, too, something of a carry-over from the O.P.A. period when few good birds ever came into the hands of the Association since it observed the regulations more strictly than most private traders at a time when the demand price for poultry far exceeded that set by law.

Financial losses during this period resulted in an inquiry and search for a new approach to the Association's problem in marketing its members' poultry. Continued discussion resulted in the commissioning of Mrs. Alyce W. Lowrie, Analyst, to study eastern auction markets and bring forward a new plan. In consequence, the Association proposed the discontinuance of direct buying and the establishment in its place of open purchase through an auction sale held under its own auspices. In this way, members were to obtain the benefits of competitive bidding by dealers who specialized in the handling of warm dressed poultry. In addition, the Association's requirements would be reflected as a demand on the auction and would prevent selling prices going unreasonably low if supplies should exceed outside buyers' normal requirements. It would also permit the Association to acquire chickens for its own distributive trade at the same average prices as were paid by others who bought on the auction. Theoretically, since the auction sales were completely open and the ranges of prices obtaining there were published weekly in the newsletter distributed to all members, transactions through rival marketing channels in this area should tend to approximate to the same scale of prices.

The auction certainly had the full advantage of Poultry Producers of Central California's organizational machinery behind it during the period of inception. Members' meetings were held. It was publicized in the press, and the Weekly News Letter of the Association, buyers were contacted individually and a number of firms, including one of the leading San Francisco wholesale houses, pledged their support. Some opposition from local hucksters and nonmembers was only to be expected. Furthermore, the Association arranged for the assembly of birds at outlying branches and for their transporation to the auction premises. Coops were supplied to members by the Association and trucking facilities were arranged for points as distant as Ukiah, 78 miles north of Petaluma. Storage and feed facilities were available for birds delivered on the day previous to the auction.

Method of Operation: The actual process of selling birds presented difficulties if buyers were to obtain a fair impression of the quality offered in particular lots without having to spend a lengthy period of time away from their business. Chickens offered for sale in English auction markets are usually set up in open wire cages where buyers can see and feel them before making their bids. This does, however, involve considerable labor in making transfers between coops and becomes impracticable where very large numbers are involved. At Petaluma all buyers had an opportunity to inspect birds already present prior to the sale and lots were arranged so as to permit access to the coops at that time. During the actual sale, the class and grade were announced by the auctioneer. It was left to buyers to associate the lot number with their previous observations. Because birds in coops were difficult to evaluate and fear of unevenness in quality might have been an effective deterrent to speedy sale at maximum prices, the Association undertook to grade all lots before they were offered for sale. This was carried out by its own employees, either at the point of loading when the birds were picked up by the Association's trucks or upon arrival at the auction when they were delivered in producers' own vehicles.

Three grades were established--"good," "fair," and "as is." "Rejects" (birds with tumors, water on the abdomen, etc.) were removed from coops graded "good" and "fair." Birds obviously unfit for human consumption were removed

from coops graded "as is."[1] Suffice it to say here with regard to auction practice that whereas birds arriving well before the time of the auction could be graded fairly effectively. The same thorough attention could not be given to crates arriving just before or during the actual sale. This operated to the disadvantage of both buyer and seller.

A tag listing the class, grade, and weight was attached to each coop. On this, space was also provided for recording the final bid and the name of the buyer. Each member's poultry was sold as a separate lot but in contradistinction to practice at auctions laying emphasis on quality, no publicity was given to the name of the producer. From some points of view, this might well be regretted since the highest prices at auction sales are generally paid for lots dispatched by producers whose names have been associated with unfailing quality and dependability in the past. Lots normally consisted of from one to five coops, with a maximum of twelve since small quantities were likely to appeal to the largest number of buyers.

All sales took place on a cents per pound basis and the coops were weighed immediately after the final bid on scales located at the side of the auctioneer's rostrum. Undoubtedly, some shrinkage was inevitable especially in the younger birds, and producers were anxious that buyers should take into account in their bidding this loss of weight since leaving the ranch. One test showed that a sample of colored fryers lost 1.1 per cent of their weight between leaving the ranch at 9:00 a.m. and going onto the scales at 11:00 a.m. This lapse of time would not be a matter of serious concern but undoubtedly many birds spent a much longer period after their last time of feeding.

Bidding was very rapid and lots were dealt with apace. Frequently, 400-500 coops were disposed of in less than two hours. The auctioneer followed the usual methods of stimulating the bidding and was aided by a representative from the Association, but there was no specific provision for the acceptance of reserve prices below which producers would not sell. Whereas, abuse of this safeguard may lead to buyers deserting a market altogether, as when the vendor and his friends waste time running up bids, yet, do not allow their birds to be sold, nevertheless most auctions allow the owner the assurance of one bid made either in person or by arrangement with the auctioneer. Presumably, producers might attend the auction and buy back their own birds subject to paying the auction charges. At any rate, numerous comments from producers indicate that the absence of any definite reserve policy deterred them from offering their best quality birds. They preferred not to shoulder the risk of a sudden drop in a market from which there was no convenient withdrawal. Clearly, a sale at which no transactions take place because of high reserves would be self-destructive in the long run, but even the additional expense of moving birds back to the ranch and offering them for sale again would prevent too irresponsible a use of this safeguard.

Some recognition was bestowed on the need for a way of determining the minimum price at which lots would be sold when the Association experimented with a blackboard in the auction room on which bids and offers might be posted. According to this plan, producers with flocks of good quality, colored fryers

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1/ Instruction to members of Poultry Producers of Central California. Weekley News Letter, June 9, 1948.

[illegible] coops graded [illegible] [1] specifies it to say here with respect to auction [illegible] [illegible] be graded fairly efficiently, [illegible] more thorough grading could not be given to crates arriving [illegible] during the auction, since [illegible] operated to the disadvantage of both buyer and seller.

A tag listing the crates [illegible] weight [illegible] was attached to each coop. On this tag was also provided for recording the final bid and the name of the buyer. [illegible] member's poultry was sold as a guarantee lot but in contradistinction to practice at auctions [illegible] on [illegible], no publicity was given to the name of the producer. [illegible] some points of view, this might well be [illegible], since the highest price [illegible] are generally paid for lots displayed [illegible] producers [illegible] with outstanding quality and reputation [illegible]. Lots normally consisted of from one to five coops, with a [illegible] of [illegible] number of buyers.

All sales took place on a [illegible] basis and the coops were weighed immediately after the final bid on [illegible] at the [illegible] of the auctioneer's rostrum. [illegible], some shrinkage was inevitable especially in the younger [illegible], and producers were anxious that buyers should take into account in their [illegible] the loss of weight during the [illegible]. One test showed that a [illegible] of [illegible] lost [illegible] of their weight between [illegible] at 9:00 a.m. and going onto the scales at 11:30 a.m. This lapse of time would not be a matter of serious concern, but undoubtedly many times about a [illegible].

Bidding was very [illegible] and lots were [illegible] with speed. Frequently, 100-150 coops were disposed of in less than [illegible]. The auctioneer followed the [illegible] as [illegible] and was aided by [illegible] from the Association, but there was no specific provision for the acceptance or rejection of prices below which producers would not sell. Whereas, [illegible] of this [illegible] may lead to buyers demanding [illegible], so when the trader and [illegible] were [illegible], [illegible], do not allow their lanes to [illegible] sold, nevertheless, [illegible] the owner [illegible] of one [illegible] in person or by arrangement with the auctioneer. [illegible], producers might attend the auction and buy back their own lots subject to paying the auction charges. At any rate, however, comments from producers indicate that the absence of any definite reserve policy deterred them from offering their best quality birds. [illegible] not to [illegible] the risk of a sudden [illegible] from which there was no very great safeguard. Clearly, a [illegible] which [illegible] take place because of [illegible] would be self-[illegible] in the long run, but [illegible] the [illegible] expense of moving birds [illegible] for sale again would prevent the [illegible] of this safeguard.

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[1] Information to members of Poultry Producers of Central California, [illegible], June 5, 1933.

for example, who might be chary of entrusting them to the day-by-day vagaries of the auction, might describe them on a blackboard and state the price they sought. Buyers present at the auction could then append their bids and it was hoped that sales could be transacted upon this basis under the supervision of the Association. A commission was payable so that the auction itself should not be prejudiced by unfair competition. The scheme did not attract continuous support and little use was made of it.

That little scope was envisaged for the placing of reserve bids may be attributable to the role which the Association saw for itself as support buyer on behalf of its members. Though always regarded as auxiliary to its egg business, once its poultry department had established outlets to retailers, there was a continuous need for a fairly even flow of produce to keep them open. It was hoped that the maintenance of this trade could be coordinated smoothly with a buying policy of leveling out price movements at the auction consequent to sharp changes in the supply of particular qualities and grades. Since the Association had access to cold storage facilities and would, thus, be able to buy on days of oversupply and refrain therefrom when offerings were short, this had all the promise of being a very satisfactory arrangement. Undoubtedly a part of the auction's early success may be attributed to it. Much of the risk, however, of buyers withholding bids until they secured birds at unwarrantably low prices was precluded by the practice of the Association in buying at every auction a quantity roughly proportionate to the supply. "Although the producer cannot be assured of a specific price on poultry consigned to the auction the presence of the Association's representative bidding on the floor will prevent any unfair practices."1/ Similarly, on days when auction receipts were restricted in volume, the Association limited its purchases accordingly in order that other buyers might not be discouraged from attendance at the sale by their inability to purchase at least a proportion of their poultry requirements for that day.

As a further insurance against the price depressing effect of an exceptionally large supply upon a group of buyers whose needs were relatively constant, the Association took pains to secure the attendance at the auction of at least one direct representative of the large San Francisco wholesalers. It was important to have present buyers able to absorb varying quantities of produce. A great deal of the initial success of the auction was due to support of this kind and even after this buyer ceased to attend regularly the Association still bought on behalf of his firm on days when it seemed unlikely that the buyers present could cope with the volume on offer.

Choice of the most appropriate days of the week for the sale raised issues interesting in themselves for the light they cast on trading conditions in the area. Tuesday and Thursday were selected originally but were opposed by the main body of buyers attending the auction. Thursday was considered too late in the week for the purchase of large stocks since they would not arrive in San Francisco until late that afternoon. This left only Friday, a busy day, in which to kill and dress the birds if they were not to be held over the week end. Smaller dealers most numerous in attendance at Petaluma had not the facilities for holding birds any length of time and would be obliged to purchase lightly on

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1/ Poultry Producers of Central California. Weekly News Letter, June 16, 1948.

Thursday. This would mean that Monday would find them out of birds altogether and eager to buy. It was common knowledge that large quantities of poultry were trucked out of the Petaluma district every Monday morning. Producers' evidence is available that buyers were keenest to take birds early in the week whenever they could do so.

Poultrymen, on the other hand, disliked Monday. Delivery of birds at an auction by the middle of the morning entailed preparation the previous day, Sunday, or very early rising on Monday, or both. They felt themselves at a disadvantage since trends in the market situation maturing over the week-end would not be known to them. Information either from the Market News Service reports, newspapers or other sources was rarely available to the rancher until later in the day or even the one following, whereas buyers, specialists in their profession of poultry dealing, made it their business to know of any changes in the price situation which had taken place before they set out in the morning. Thus, producers' decisions on whether or not to sell were based perforce on observation of price and demand relationships obtaining several days earlier than those governing buyers' decisions whether or not to buy.

If hens had to be culled from a large flock immediately before loading, and this is quite customary since poultrymen do not wish to handle birds twice, then delivery to the auction on Monday morning was inconvenient. If there was a further factor of transportation over relatively long distances, then it became impossible. When Monday and Wednesday were adopted as the sale days, the quantity received on the second day was generally double that received on the first. Important elements in the total quantity sold, particularly in terms of quality, were the shipments from Poultry Producers of Central California branches in northern Sonoma and Mendocino counties and the Napa valley. (See map, page 3, for percentages furnished.) The mere problem of distance precluded the arrival of much of this produce on Monday. Buyers complained in consequence that Monday, the day when they most needed to buy, offered little opportunity of doing so. By and large, prices ran higher at Monday markets, especially in the lower grades most sensitive to the pressure of demand. All through the year those sponsoring the auction were urging local producers to send their birds to the Monday market so they might take advantage of the demand situation then prevailing and mitigate the danger of oversupply on the Wednesday sale to which birds from more remote areas were consigned by necessity.

Sale through the auction was confined to members of Poultry Producers of Central California. This limitation may have excluded some poultrymen who would otherwise have availed themselves of the auction's facilities. As a major feed supplier, however, and outlet for half the eggs sold off farms in central California, the Association certainly claimed the allegiance of most egg producers within range of Petaluma although the specialized meat bird raisers saw less to gain in such ties.

No restrictions were imposed on either the quantity or type of poultry handled. Members were warned, however, against offering for sale miscellaneous produce--ducks, geese, squab, etc. The Association's protective buying policy was confined to poultry for which the Association had ready outlets and did not apply to miscellaneous varieties. These, it advised, should be marketed through other channels.

The financial procedures of the auction were established as follows: The majority of sales were conducted on a cash basis. Strict credit regulations

requiring prompt payment were in force. Buyers paid or signed at the auction office before removing their purchases. Producers received a check from the Association by mail within a day or two of each sale. This amounted to the buyer's price less a deduction of two cents per pound. No charge was made to buyers. Of the two cents, one-half cent was credited to the Poultry Capital Fund of the Association. Against this, members received certificates bearing interest at 4 per cent per annum. The remaining one-and-a-half cents was used to defray the operating expenses of the auction. Most of it was absorbed in payment for services provided by the Association. The auctioneer, an experienced member of a local livestock firm, was remunerated from this margin according to agreed percentages of the gross turnover.

Members availing themselves of the Association's transport facilities for picking up and conveying birds to the auction were charged for this separately at the customary rates. At one time, poultrymen in the vicinity of Ukiah brought their birds into Poultry Producers of Central California branch there on Tuesday whence they were hauled to Petaluma and fed overnight for the Wednesday sale. One-half cent per pound was charged for this additional service. Small lots assembled at branches other than at Petaluma and involving local branch handling instead of merely direct shipment to the auction also bore an additional charge of one-quarter cent.1/

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1/ From February 23, 1949.

Changes and Developments

The first auction started with splendid support from producers. Five hundred and eighty coops holding up to 100 pounds of poultry each were sent in for sale on June 15, 1948. This was publicized as the largest quantity of poultry handled at any auction in the nation.

Changes after the first few weeks turned on the choice of day and size of lot. Buyer intervention led to the substitution of Monday and Wednesday at 10:00 a.m. for Tuesday and Thursday. Lots were not to be larger than would suit the convenience of small retailers who were frequently responsible for the best bids. Active buyers numbered ten to twelve during the late summer of 1948; others attended in order to obtain the "feel of the market." They were increasingly aware of the part the auction played in determining poultry prices in the Bay area. Even those interested in buying few if any birds at the auction found it to their advantage to be present.

Criticism during the first six months was directed in the main against the prices received for colored fryers. These tended to come forward in large lots and on such occasions supply exceeded demand at expected prices. Thus, bids for early and later lots of the same type of bird showed a disconcerting width of range. This led to the suggestion that offers and bids should be posted for meat birds. The Association defended its support policy saying that large quantities of broilers were already being bought for current sales and that colored fryers were a type of poultry which it was unwise to freeze and put into storage. Purchases, therefore, could only be made at prices compatible with resale without loss through available current outlets. In an attempt to deal with this situation the Association planned to operate an eviscerating and freezing plant on its San Francisco premises.

In response to discussion at the Association's annual district membership meetings, price ranges at the auction were compared with those published by the Market News Service in San Francisco for birds of comparable quality. Evidently, the range was considerably wider and there was disappointment that the competition of buyers in open auction did not tend to focus the price at or near a given level as had been anticipated. Part of this price range may be attributed to differences in quality within a given grade either because hurried grading had left some inferior birds in an otherwise good lot or because of too inclusive an interpretation of the boundary of the higher grade. The average weight per head might also become a differential between two lots of birds of comparable quality.

Much prominence was given in the Association's weekly and monthly publications to the need for a steady supply of good quality birds at the auction so as to maintain a keen buyer interest. But, clearly, egg producers selling only cull hens or pullets could not conform to this. All through it seems that the vendors of off-grade birds benefited most, often obtaining relatively higher prices at the auction than had been received through a private bargain for the better grade birds at the ranch. All these factors were part of, and helped to further the trend toward concentration on hens and broilers with a diversion of the better meat birds into other channels.

Yet, on March 2, 1949 at a meeting in Hayward, (see map, p. 3), 85 Poultry Producer members asked for help in solving their poultry marketing problems. Their request was for specific action either by the establishment of an auction

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Yet, on March [illegible], 1930 at a meeting in Hayward, (see map, p. 31), [illegible] Poultry producer members asked for help in solving their poultry marketing problems. Their request was for specific action either by the establishment of an auction

or direct purchase and dressing by the Association in their area. Committee members, however, advised against the setting up of a second auction and proposed that poultry should be dressed in the vicinity but only with the support of a long-term exclusive contract, the enforcement of which would be a local responsibility.

The auction at Petaluma continued to provide an excellent outlet for Leghorn fowls, broilers and such colored hens as were forthcoming, but for colored fryers it seems to have been unreliable. From March 1, 1949 on, the Association made it known that it would make direct purchases of lots offered by members, a course which had been in abeyance since its inception. Throughout, the Poultry Department was endeavoring to serve the Association's members as well as possible and to try whatever methods offered most promise of affording them satisfaction.

Prices during June 1948 were much higher in California than in the rest of the country and the auction continued to attract an increasing volume of business. The sale of August 24, 1948 when 30,000 pounds of poultry were offered was the heaviest since those immediately preceding and following the winter holiday period. Two old complaints were reiterated about this time, however. Grading practice had again been subjected to criticism. Producers were urged not to send in their birds so late that they arrived during the course of the sale. Timed originally to begin at 10:00 a.m., it had gradually been put off to 10:30 a.m. The major part of the weekly total volume was still being concentrated into the Wednesday sale which was characterized by shipments from the more outlying areas. Receipts from the Petaluma district were falling off relative to those of the same season in the previous year. This geographical difference in appreciation of the facilities provided by the auction was natural enough. In the Petaluma area, situated within two hours trucking time of San Francisco, producers had numerous outlets for their birds among locally known hucksters and the Bay area retailers themselves. In other areas, where poultry ranches were more scattered, buyers were scarcer and the bargaining power of the producer considerably less. The Association provided, moreover, a convenient transport service to the auction point and protected the sale of birds when they arrived there. Undoubtedly, this was much appreciated in Mendocino and northern Sonoma County.

From the fall of 1949 business at the auction declined. Since the Association handled 3.6 million pounds of poultry in 1949 as against 3.7 million pounds the previous year, it must be assumed that direct purchases from members were stepped up proportionately so that the total volume of purchases by the Association remained at a fairly constant level. On March 15 the Weekly News Letter announced that, whereas members were not all fully aware of the Association's direct buying policy, it was actually only buying at the auction the minimum quantity necessary to support it and the dressed poultry operations at Petaluma depended upon direct purchases.

A further reduction in the volume of sales at the auction was noted during the winter and attributed to seasonal circumstances, but when it never picked up again, it was decided that the auction should be held once a week on Tuesday only.

Auction Volume

At the first auction held on June 15, 1948, a total of 41,562 pounds of live poultry was sold. Subsequent offerings did not exceed this until late in September but ranged from an upper limit of some 35,000 pounds down to 15,000, with a tendency towards stability at 30,000. The arithmetical average over the first three months of operation, covering 28 auctions, was 28,223 pounds per day of sale. If producer attraction can be measured in this way, then the auction was a success from its very outset.

Excluding auctions influenced by the holiday periods of Thanksgiving and Christmas, the volume of sale per auction continued on much the same level through to the end of January, 1950. On January 12, 1949 over 55,000 pounds of poultry were disposed of through the Petaluma auction, an all-time peak. Sales fell off during the spring months. This period was, nevertheless, one of continued success for the auction's sponsors and average sales during the six months, September through March, were maintained at well over 24,000 pounds per auction. Total sales for this period run to approximately 1.2 million pounds.

Through the summer of 1949 the trend was downward. Sales of 25,000 pounds came to be regarded as substantial and the total for the period April to September, 1949, did not reach one million pounds. During these months the average sale was only 17,000 pounds. Though total sales of poultry in California in 1949 showed no marked decline from 1948 levels, the auction business continued along a lower level. Reduced offerings during the winter of 1950 were attributed to seasonal influences, but when early summer witnessed no significant revival it was decided that only one auction should be held each week.

Total auction sales for 1949 amounted to 1,814,152 pounds as compared with 1,487,143 pounds during the six-and-a-half months from its inauguration in June 1948 to the end of the year. Handlings for the first quarter of 1950 totaled 275,575 pounds, averaging 12,000 pounds for each of 23 sales, only half the volume of the previous year.

Period for Analysis.--The cooperation of Poultry Producers of Central California made it possible to study the workings of the auction more comprehensively and in greater detail than is normally practicable. Careful records were kept by the Association's poultry department and proved to be an invaluable source of information.

Mainly technical features determined the selection for analysis of the twelve months following September 27, 1948. During this period, auction records were kept in the form most suitable for careful analysis. Only for this period were transactions in the different class grades carefully distinguished. Previously reports centered mainly on prices obtained for the best birds in each class. From September 27, separate price ranges were quoted regularly for grades "good," "fair," and "as is" in each of the major classes, Leghorn hens, Leghorn broilers, colored fryers, and colored hens. This practice continued until the following September when efforts to distinguish clearly between three grades were relaxed and intermediate categories "good and fair," "fair and as is," "poor," etc., appeared on the records. One hundred consecutive auctions representing a complete year, inclusive of all the different seasons, were reported under one standard procedure.

These data comprehend the class, quality grade, net weight, price per pound, the name of the purchaser and the location of the branch of which the vendor of each lot was a member. The number of coops in each lot is available but not the number of birds in each coop. Little can be done, therefore, in the way of analysis in terms of poultry numbers or of average weight per bird. It is, therefore, all the more important that volume and price by weight can be studied with such exactness.

Figure 2 gives visual expression to the gross turnover per auction sale over the twelve-month period. It varied sharply from auction to auction through most of the year and fluctuated violently during the holiday periods of Thanksgiving and Christmas. Much of this variability, together with the unfortunate consequences it had for buyer and seller alike, must be attributed to the practice of holding two auctions per week under circumstances which led to one's being patronized more intensively than the other. These factors were discussed previously (p. 16). The extent of their influence is reflected in the number and size of the breaks in the sales curve.

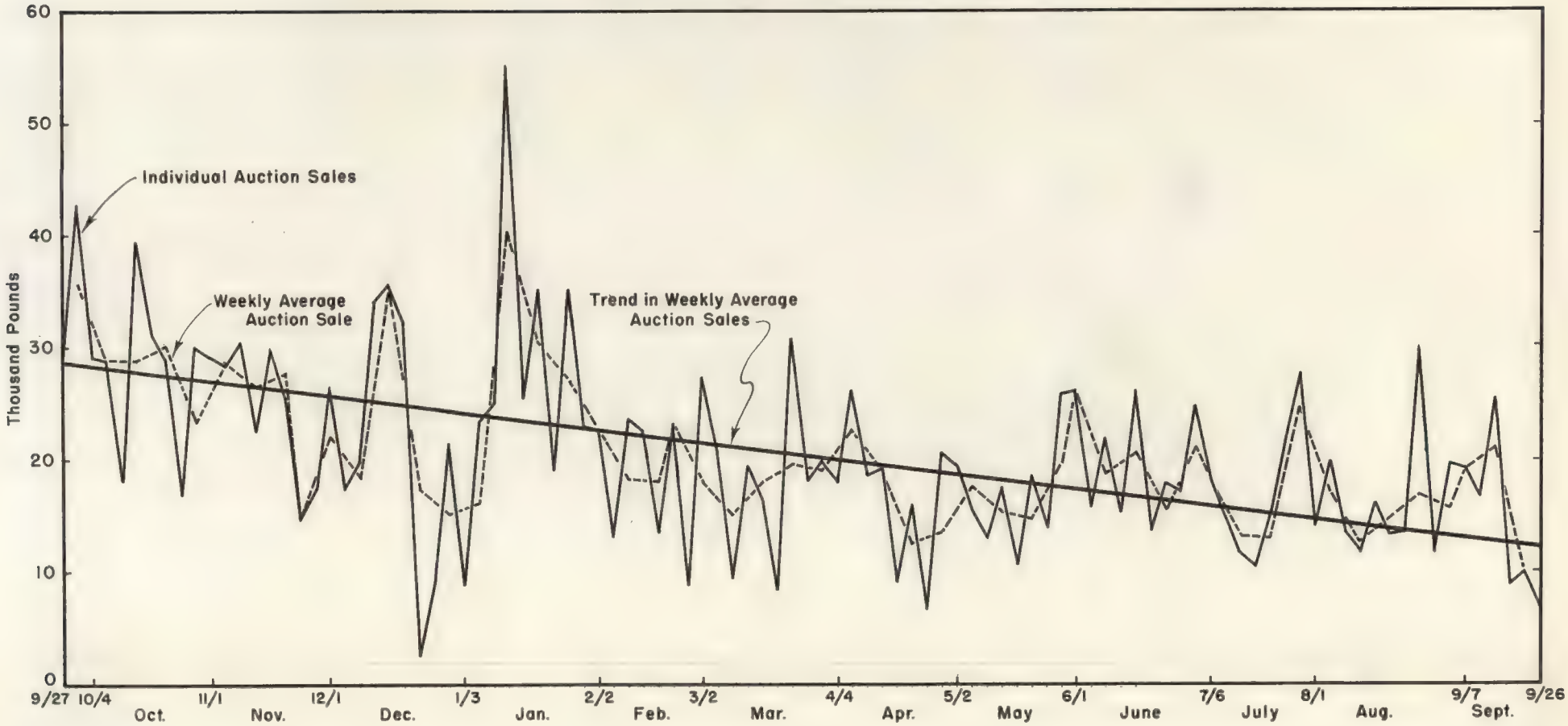
Variation in Auction Supplies.--The mean quantity sold per auction was 20,621 pounds. The average deviation from this mean over the whole year was 6,458 pounds, amounting to 31.3 per cent of the mean quantity sold. That the quantity sold at each should fluctuate by one-third seems significant with reference to the matching of supply with demand. The range of deviation was much more. On December 20, 1948, 32,000 pounds of poultry were offered, on the sale following only 2,000. By this latter date producers had dispatched whatever they intended to send to the auction before Christmas and were occupied with other interests. Fluctuations at other seasons of the year are less easily explained but were almost as disturbing, nevertheless. Sales on March 10, 1949 amounted to 16,609 pounds, on March 21 to 8,527, and then jumped to 30,765 on March 23. The tendency was, however, for the fluctuations to become less severe during the summer. During this part of the year, producers tended to offer birds for sale more as a regular matter of course than in response to special temporary changes in the demand price for poultry or eggs. Whereas the average deviation from the annual mean was 34.6 per cent during the months September to March, it was only 26.2 per cent for the summer period, April to September.

Weekly Averages.--Since the practice of holding two auctions per week was subject to recognized difficulties and may be regarded as an institutional experiment rather than a constant factor which could not be changed, an attempt has been made to consider the supply situations which might have arisen if only one auction had been held per week. Sales volume for weeks carrying twin auctions were summed and halved as averages per auction week. Those weeks in which only one auction was held owing to interruption by legal holidays (for example, those containing November 24, February 22, May 30, and July 4) continued to carry the volume for the auction actually held. The purpose of this maneuver is to remove the intraweekly variation and distinguish fluctuations resulting from external supply conditions from those brought about by details in the institutional setting. The resultant figures appear in table 1 and are reflected as the broken line in figure 2.

The fluctuations are still considerable albeit not quite so extreme as they were previously. Those experienced during the late spring would probably not be unduly upsetting to buyers' and sellers' expectations; those of the winter period still appear severe. The average deviation from the mean computed

[illegible]

FIGURE 2
PETALUMA POULTRY AUCTION
TOTAL VOLUME HANDLED 1948 - 49



on this weekly basis was 24.9 per cent. This is still considerable but markedly less than that existing where auctions were held twice weekly. Much of this must be attributed to the six summer months. Whereas from March to September deviation from the annual mean averaged 20.1 per cent, during the previous six months it amounted to 29.8 per cent. This latter figure is of the same order as that obtained for the weekly auction system and suggests that the concentration of business on one day per week would have done little to iron out the fluctuations in supplies during that period of the year. Blame for this must still be laid on the disruption of the marketing pattern brought about by the special marketing conditions associated with Thanksgiving and Christmas.

Straight Line Trend.--A straight line was fitted to the graph of average weekly auction sales for the period September 27, 1948 to September 21, 1949 by means of the "least squares" method and has been reproduced in figure 2. The trend is steadily downward according to the formula;

$$Y = 28.65 - .3158\ X$$

where Y = average weekly auction sales in thousands of pounds and X = a time unit of one week commencing September 27, 1948. This may be interpreted as indicative that from an initial turnover of 28,650 pounds, auction handlings tended to decline by rather more than 300 pounds each week of operation. This did not happen regularly. The fluctuations above and below the straight line stand out very clearly in the figure.

Subject to occasional exceptions the chart does indicate the existence of definite periods when auction receipts tended to rise above, or fall below, the trend line. From mid-November to the second week in January they were below except for three consecutive auctions terminating six days before Christmas. Through January, receipts stood well above the trend. From February 2 until the end of May they remained steady, somewhat below it. Thence, to the end of the twelve-month period they lay above it, except on very few occasions. Diminishing support for the auction is perceptible in the small sales towards the end of September, since this had been a peak marketing period in the previous year. The last reading on the trend line is 12,000 pounds, a decline of over 50 per cent from the level at which it began.

Seasonality Comparisons with Other Markets.--The validity of such comparisons is limited by the different character of the markets and more specifically by the types of birds sold therein. The Petaluma data can be set beside that published for middle western primary markets, since both represent offerings at the producer level. Yet, whereas the former reflects production conditions in one specific geographical area, the other is a composite of purchases over all the middle western states. Few other markets would carry such a high proportion of Leghorn hens as wood Petaluma. San Francisco figures are also available but these refer to wholesalers' purchases for sales to retailers in a market especially noteworthy for its pre-eminent interest in fresh poultry. If due allowance is made for these influences, it should be illuminating to compare sales variations at Petaluma with those in the middle western series.

Table 2 demonstrates that the monthly variation in supplies to the Petaluma auction was of the same order as the weekly variation. The difference between the two Petaluma coefficients, 26.2 per cent and 22.8 per cent, is insignificant by comparison with the difference between these and the other series. Clearly, the seasonal variation at the middle western primary markets

on this weekly basis was 26.2 per cent. This is still considerable but markedly less than that obtaining when auctions were held twice weekly. Much of this must be attributed to the six-[illegible] [illegible]. [illegible] from March to September deviation from the annual mean averaged 22.1 per cent, during the previous six months it amounted to [illegible] per cent. This latter figure is of the same order as that obtained for the weekly auction [illegible] and suggests that the concentration of business on one day per week would have done little to iron out the [illegible] supplies during that period of the year. Blame for this must still be laid on the [illegible] of the marketing [illegible] brought about by the [illegible] [illegible].

Straight Line Trend.--A straight line was fitted to the graph of average weekly auction sales for the period September 27, [illegible] to September 21, [illegible] by means of the "least squares" method and has been reproduced in Figure 2. The trend is steadily [illegible] according to the formula:

$$Y = 2[illegible] - .[illegible] X$$

where Y = average weekly auction sales in thousands of pounds and X = a time unit of one week commencing September 27, [illegible]. This may be interpreted as indicating that, from an initial turnover of [illegible] pounds, auction [illegible] [illegible] [illegible] by rather more than [illegible] pounds each week of operation. This did not happen regularly. The fluctuations above and below the straight line stand out very clearly in the [illegible].

Subject to occasional exceptions the chart does indicate the existence of definite periods when auction receipts tended to rise above, or fall below, the trend line. From [illegible] to the second week in January they were below except for three consecutive auctions terminating six days before Christmas. Through January, receipts continued [illegible] the trend. From February 2 until the end of [illegible] they remained steady, [illegible]. [illegible], to the end of the [illegible] [illegible] they lay above it, except in very few occasions. [illegible] for the season is [illegible] on the small sales towards the end of [illegible], since this had been [illegible] in the previous year. The last reading of the trend line is [illegible] pounds, a decline of over 50 per cent from the [illegible] [illegible].

Comparative Comparisons with Other Markets.--The validity of such comparisons [illegible] of the markets and more specifically by the types of [illegible] sold [illegible]. The [illegible] data can be set beside that [illegible] for [illegible] or [illegible] markets, since both represent offerings at the producer level. [illegible] the former reflects production conditions in one specific geographical area, the other is a composite of purchases from all the middle western states. Few other markets would carry such a high proportion of [illegible] as used [illegible]. [illegible] figures are also [illegible] but [illegible] [illegible] purchases for sales to retailers in a market [illegible] [illegible] [illegible] [illegible] in fresh [illegible]. If due allowances [illegible] made for these [illegible], it would be illuminating to compare [illegible] variations at Petaluma with those in the middle western centres.

Table 2 demonstrates that the monthly variation [illegible] [illegible] to the [illegible] auction was of the same order as the weekly variation. The difference between the two Petaluma coefficients, 2[illegible] per cent and [illegible] per cent, is [illegible] by [illegible] [illegible] [illegible] [illegible] between these and the other

TABLE 1

Total Sales Adjusted to Weekly Averages Per Auction: Petaluma Live Poultry Auction
September 27, 1948-September 21, 1949

Sale dates 1948	Average per auction per week	Sale dates 1949	Average per auction per week	Sale dates 1949	Average per auction per week	Sale dates 1949	Average per auction per week
	1,000 pounds		1,000 pounds		1,000 pounds		1,000 pounds
Sept. 27, 29	35.9	Jan. 3, 5	16.25	Mar. 28, 30	19.1	July 6	18.1
Oct. 4, 6	29.0	10, 12	40.3	Apr. 4, 6	22.55	11, 13	13.2
11, 13	28.9	17, 19	30.35	11, 13	19.0	18, 20	13.0
18, 20	30.25	24, 26	27.15	18, 20	12.6	25, 27	24.55
25, 27	23.55	31, 2	22.8	25, 27	13.65	Aug. 1, 3	16.95
Nov. 1, 3	28.85	Feb. 7, 9	18.4	May 2, 4	17.55	8, 10	12.65
8, 10	26.65	14, 16	18.1	9, 11	15.35	15, 17	14.7
15, 17	27.8	23	23.3	16, 18	14.7	22, 24	16.8
22	15.0	28, 2	18.1	23, 25	19.55	29, 31	15.65
29, 1	22.1	Mar. 7, 9	15.15	June 1	26.2	Sept.7	19.2
Dec. 6, 8	18.75	14, 16	18.05	6, 8	18.85	12, 14	20.95
13, 15	34.95	21, 23	19.65	13, 15	20.55	19, 21	9.5
20, 22	17.4	28, 30	19.1	20, 22	15.65		
27, 29	15.25			27, 29	20.95		

Total Sales Adjusted to Weekly Averages for Auctions, Potatoes Live Poultry Auction
October [illegible] - November [illegible], [illegible]

Oct.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nov.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dec.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

was nearly double that at Petaluma, but at the same time more symmetrical in its development through the year. It would be the easier to predict. The steady increase in marketings through the middle western primaries, from a low point in March to a peak in September, and the subsequent steady decline reflect the hatching and development cycle of the chicken bred under "natural" conditions. The irregular movements between months at Petaluma reflect the pressure of factors not influencing the former series. A high proportion of laying hens introduces the economic ratios as on egg to feed prices and egg yield to maintenance cost as factors determining the times when egg producers step up their rate of culling. The Petaluma data lack the smoothness of a series compiled by averaging the returns of a number of plants and some of the sharp contrasts between months (for example, January-February, June-July,) may be attributable to purely local or accidental circumstances. October and November were peak months in both series, but whereas receipts at middle western primary markets fell off sharply through December and January, handlings at Petaluma continued to rise.

The San Francisco series provides a salutary contrast in that it represents the seasonal distribution of consumer demand insofar as poultry meat wholesalers were able to anticipate it from their experience of the market. The regularity and evenness of the San Francisco wholesale series are all the more striking in that they refer only to fresh birds. Thus, periods of deficit have been supplemented but little by drawings on frozen stocks. Offerings of fresh birds have been so high during the months of short supply (for example, January to March as shown in the middle western primary markets series) that current demand could still be met from fresh stocks. The corollary to this is that during the seasons of ample supply, the San Francisco wholesalers can only have kept receipts down to the level of consumer demand they anticipated by refusing to accept a large proportion of the live birds offered. This observation would still be relevant if the Petaluma series were characteristic of the California supply situation and there are few grounds for assuming that it is. This has implications with respect to selling conditions at Petaluma, which will be discussed more fully later (p. 56). Suffice it to say that during substantial periods of the year, buyers who planned to satisfy a fairly constant retail demand were faced with much larger offerings of birds than they could absorb, even if they had relied upon the auction for a definite portion of their requirements.

Composition of Sales.--The conclusions of the preceding section pointed to the desirability of ironing out week-to-week, month-to-month fluctuations in the volume of poultry offered at Petaluma. Further insight into the fundamental causes of this situation may follow an examination of the proportions of the total supply to the auction contributed by the major classes of poultry and the way in which they varied seasonally over the twelve-month period.

In table 3 the total sale of chickens has been broken down into classes so far as this was profitable. Leghorn fowls constituted the greatest proportion It cannot be overemphasized that the Petaluma auction represented first and foremost an attempt to facilitate the disposal of older birds after they had ceased to be profitable layers. Leghorn broilers stood next in importance, amounting to rather less than one-quarter of the gross turnover. This also is probably a unique feature. Some practical method of introducing to the meat market the young cocks which are the natural by-product of breeding Leghorn hens has been a dire need in this area. Even so, only a part of the flow of young male chicks from the hatcheries was fed for meat. Leghorn broilers are

TABLE 2

Seasonality in the Marketing of Poultry: By Months
October 1948-September 1949

Month	Total by weight			Index 100 = monthly average for year		
	Petaluma monthly totals	San Francisco monthly receipts	Central Western primary markets, weekly average per plant	Petaluma	San Francisco	Central Western primary markets
	1,000 pounds					
October	223	1,400	30.3	135	92	168
November	199	1,392	20.1	120	92	112
December	199	1,525	13.4	120	101	74
January	251	1,620	8.4	151	107	47
February	128	1,295	10.0	77	86	56
March	171	1,641	8.5	103	108	48
April	130	1,519	10.1	79	100	56
May	126	1,462	11.8	76	96	66
June	179	1,578	17.6	108	104	98
July	120	1,442	20.5	72	95	114
August	164	1,647	29.5	99	109	164
September	100	1,663	35.5	60	110	197
Coefficient of variation (per cent)				22.8	6.5	42.5

Sources: Petaluma monthly totals: sales at Petaluma Live Poultry Auction.
San Francisco monthly receipts: Federal-State Market News Service. Summary of Egg and Poultry Markets. Weekly. San Francisco, California, Processed. The receipts represent live chickens of California origin.
Central Western primary markets. U.S. Bureau of Agricultural Economics. Poultry and Egg Situation. Washington, D.C. Eight times per year. Processed. The receipts represent live chickens, weekly average per plant.

Table [illegible]

Seasonality in the marketing of poultry: By months
[illegible]

Month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Coefficient of variation (per cent)					[illegible]	[illegible]

Source: Relative monthly totals: Sales at Petaluma Live Poultry Auction.

Summary of egg and poultry receipts, Monthly. San Francisco, California, processed. The receipts represent five classes of California groups.

Procedure: The receipts represent live chickens, weekly average per plant.

TABLE 3

Composition of Total Sales: Petaluma Live Poultry Auction
September 27, 1948-September 26, 1949

Class of bird	Total weight	Percentage of total sales	
		by weight	by value
	1,000 pounds	per cent	
Leghorn hens	765.8	37.1	35.0
Leghorn broilers	461.9	22.4	23.1
Colored fryers	365.3	17.7	19.4
Colored hens	111.2	5.4	6.7
Roasters	81.4	3.9	4.3
Crossbreds	19.7	1.0	1.0
Other classes[a]	173.4	8.4	7.8
Unclassified[b]	83.7	4.1	2.7

a/ Roosters, pullets, rejects, etc.

b/ Excluded from other classes owing to inadequate data with respect to weight, price, etc.

carried to weights of $1\frac{1}{2}$-$2\frac{1}{4}$ pounds by producers with the facilities to house and feed them. Beyond this age they tend to become "staggy" and marketing is difficult. A vital concern to the rancher in this branch of the industry is that broilers attaining the desired weights should be sold at their optimum stage and vacate the houses needed for the next batch ordered at the hatchery.

Colored fryers weighing from $2\frac{1}{4}$-4 pounds represent a greater investment of producers' capital and of their feed and time. In California, fryer production is a specialized business, usually conducted on a fairly large scale. By the nature of its product, it is dependent on contacts with the more substantial and higher priced outlets. Colored fryers amounted to 17.7 per cent of the volume of poultry marketed. Together, these three classes (colored fryers, Leghorn broilers, Leghorn hens) comprised over three-quarters of total handlings and the success of the auction depended upon its efficiency in moving them.

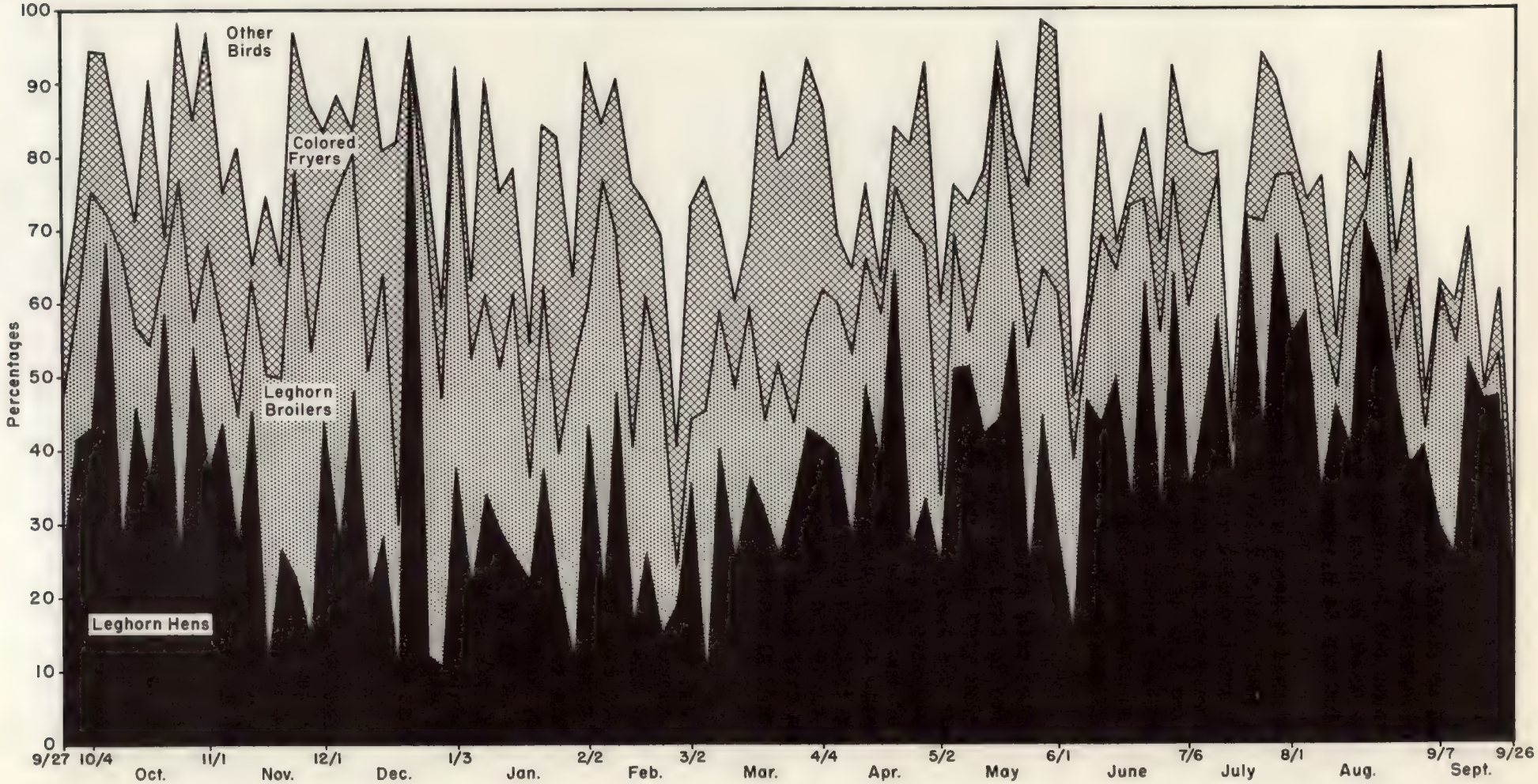
Crossbreds between light and heavy breeds might well have been included with the colored fryers, since they constituted only one per cent of sales. Careful analysis of price relationships demands, however, that they should be kept separate and this distinction has been adhered to throughout the study. Colored hens and roasters were most in demand at the auction, a condition which prevails throughout California. The published data do not enable one to state whether these deviations exceed or are less than those customary at other markets. But it is clear that Leghorn hens and broilers were supplied much more evenly than the colored birds, and of the two foregoing, offerings of hens were the more stable. Thus, buyers of these types of birds could have more confidence that they would be able to meet anticipated requirements than those interested in the other classes.

Changes in Proportions of Different Classes.--In figure 3 are set out the three major classes--Leghorn hens, Leghorn broilers, and colored fryers--and the remaining groups combined under one heading as percentages of the total supply over a twelve-month period. Leghorn hens tended to form some 30-40 per cent of the total supply of birds during October and early November but became a less important element thenceforward until the beginning of April. This period is coincident with that of the peak lay for birds hatched under natural conditions. Egg producers would be culling out fewer birds at this time than at any other. The heavy breed hen is much sought after for family dinners, yet scarce because as layers the light breeds have a long-standing monopoly. Colored hens and roasters amounted to less than 10 per cent of the total sale by weight at Petaluma, though showing up more prominently in terms of value.

The group "other classes" made up 8 per cent of the total handlings. It comprised a motley collection of sub-categories of which no single one had the magnitude to influence the course of the market. A buyer might be as interested in buying old cock birds as a breeder would be in selling them, but to neither could transactions in this restricted field form a significant part of his business.

Seasonal Changes in the Importance of Different Classes.--It has been shown that, although supplies to Petaluma fluctuated less than those going to some other first buyers, the variations were such as to exceed the degree acceptable to processors in a major market. Therefore, it would be interesting to know if these fluctuations devolved from a particular class or classes of birds and

FIGURE 3
PETALUMA POULTRY AUCTION
MAJOR CLASSES AS PERCENTAGES OF TOTAL VOLUME HANDLED 1948 - 49



which, if any, exercised a stabilizing influence. The percentage deviation from the mean quantity offered at each auction furnishes useful evidence in this context. It has been computed for the three major classes as follows:

Class of bird	Deviation from the mean supply per auction
	per cent
Leghorn hen	45
Leghorn broiler	51
Colored fryer	76

Thus, for example, buyers of Leghorn hens could expect an average variation in supplies at different auctions approximating to 45 per cent with the possibility that the range between specific sales would be very much larger. In this way an auction in which Leghorn hens made up a substantial proportion of total sales would be more stable than one dependent on colored fryers for the bulk of its supplies.

From May onward, the proportion of hens rose steadily to well over half and showed no signs of falling until the following September.

Relatively, broiler sales were most important to the auction through November to Christmas and again through January. During the summer, their proportionate weight diminished steadily, being interrupted only by a brief rise towards the end of August.

Colored fryers made up a steady 20 per cent of auction business for the first six months of the year studied and reached a peak in March. From this point they fell off sharply. Sporadic shipments from specialized producers brought large quantities to the auction at scattered intervals but the months of August and September saw them playing a relatively insignificant part.

Some hesitation should precede any assertion that the changes in the proportions of the totals contributed by the different classes were indicative of long-term trends in the character of the auction. This would presuppose the possibility of distinguishing fluctuations due to seasonal changes or other recurrent influences from those attributable to a switch in the sales outlets employed by different types of producers. If there were any truth in this latter conclusion, then it would support the view that at this time the auction was becoming increasingly dominated by Leghorn hens at the expense of broilers, and still more so at the expense of the colored fryer.

Grading Policy

Quality grading which has become a conventional practice in the marketing of eggs is not paralleled in the marketing of live poultry. Standards are less well established and more difficult to apply. The work is time-consuming and tedious. Decisions are open to question. Of all aspects of poultry marketing, this is one of those most needing attention.

Accurate grading is very important. It benefits both buyer and seller in facilitating the appropriate pricing of each lot traded. Nothing is more exasperating to the seller than seeing superior quality buried under a blanket of mediocrity. In few ways is a buyer more effectively deterred from expanding his purchases than by finding "rejects" and "seconds" among birds acquired on the assumption of even quality throughout. This is especially important where a buyer's business is built up on supplying different types of markets with specific grades of poultry. Even where buyers are able to dispose of all types of chickens without difficulty, it is still more convenient that allocation between outlets be preceded by some process of quality segregation.

In formulating their final bids, buyers of ungraded lots tend to make allowances for risk of how many poor birds will be in the lot. This may exceed the cost of grading. This deduction is lost to both auction and producer. Many of the larger dealers, moreover, decline the risk altogether. Competition between buyers would be reduced proportionately if grading were not attempted.

Recognition of the intrinsic value of grading leads to problems of application. Both in America and Europe techniques of grading live poultry are still experimental. The bases of grade distinctions and their usefulness in different circumstances remain obscure. Little attempt has been made to correlate the standards applicable at different marketing stages. At present, retail customers would have great difficulty in associating counter grades at the store with those used by the dealer in bargaining at the farm.

Those setting up live poultry grades at the Petaluma auction were pioneers in this particular field and the way their ideas developed under the strain of continued experience should amply repay investigation. The first approach will be to study in the various classes handled, the proportions of the total volume which fell into the grades they established. This should furnish evidence both as to the character of the market and of the birds supplied to it, and of the suitability of the grade specifications adopted and the efficiency with which they were applied. Flexibility, in accordance with seasonal fluctuations in supply, is another aspect worthy of careful study. Since so little live poultry is graded in California, the experience gained at Petaluma is of moment in suggesting the directions of future development.

United States Grades.--In the marketing of poultry, the size of the unit is so small, relative to the number of units handled, that grading in lots becomes vitally important. There must be a common language of quality if buyers and sellers are to discuss prices in terms of objective criteria and make true comparisons between the various alternatives open to them. The wider the area over which these criteria hold good, the more satisfactory the marketing system. Unless there are fundamental differences in the character of demand between different localities and regions, it would be preferable that these standards hold good over the whole country. To this end the U. S. Government has published specifications of quality standards for individual live birds on the basis of

the following factors: health and vigor, feathering conformation, fleshing, fat covering, defects. For the detailed specifications see Appendix I, page 88.

It will be appreciated that the application of such detailed tests could only be carried through with favorable conditions for handling, transference into different coops, etc., and would involve the exercise of careful judgment on the part of the grader. A steady flow of fairly uniform birds through a packing plant would probably offer a suitable opportunity, but not the physical and psychological environment of a crowded auction yard. Whereas a packing plant might employ a professional grader and arrange for special viewing, handling and separating points, the sale yard staff was faced with a heavy overload for a few hours twice a week. Similarly, the auction truckers out collecting birds from surrounding ranches were expected to allocate birds into their different grades as part of the process of loading. Scanlan and Lennartson reported, in a survey of egg and poultry auctions before the war, that only one had adopted the United States standards for live poultry.1/ Most were compelled to compromise on cruder and more approximate techniques.

At Petaluma, birds were divided into three grades--"good," "fair," and "as is." These are probably appropriate to the circumstances and approximate to the New Jersey grades which have been used widely in the East where the Poultry Producers went for the lessons of experience.2/

To qualify as New Jersey No. 1, live birds must be full fleshed, full feathered, straight keeled, soft meated for the class, free from tears, bruises, deformities and external evidence of disease, with extremely large abdomens or broken bones not permitted.

To qualify as New Jersey No. 2, live birds must be fairly well fleshed, fairly well feathered, free from tears, bruises, deformities, broken bones and external evidence of disease (small blisters not exceeding one and one-half inches and/or slightly crooked breastbones allowed).

"As is" would include any birds excluded from the first two grades but which were not classified as "unsalable." At Petaluma it was expressly stated that "only birds obviously unfit for human consumption will be removed from coops graded 'as is.'"

Difficulties in Practice.--In practice, the grading of live poultry is subject to a high degree of human error. The feather covering masks bodily defects, twisted breasts, blisters, etc., likely to impair the marketability of the bird when plucked. The depth of flesh can be estimated only by feeling each bird. This is laborious and difficult in coops holding large numbers. In consequence, undue weight may be given to visual impressions. There is a popular suspicion that battery-bred chickens have often been kept in overcrowded forcing conditions which had an adverse effect on their health. This view, however, has no regard

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1/ Scanlan, John J. and Roy W. Lennartson. Cooperative Egg and Poultry Auction Associations. Washington, D.C., U. S. Farm Credit Administration, 1940. 101p. (Bul. 37)

2/ Todd, Leon. The Poultry and Egg Auction Markets of New Jersey. New Jersey, 1937. 10p. (New Jersey Dept. Agr. Circ. 273)

[illegible] separately, [illegible]. For detailed specifications see Appendix A, page [illegible].

It will be appreciated that the application of such [illegible] standards would [illegible] adjacent coops, etc., and would involve the exercise of careful judgment on the part of the [illegible]. A steady flow of fairly uniform birds through a packing plant would probably offer a suitable opportunity; but not the physical and [illegible] environment of a crowded auction yard. Whereas a packing plant [illegible] at specific points, the auction yard staff was faced with a heavy overload for a few hours twice a week. Similarly, the auction broker's out collecting birds from surrounding ranches were expected to allocate birds into their different grades as part of the process of loading. Scanlan and Henderson report, in a survey of [illegible] and poultry auctions before the war, that only one had adopted the United States standards for live poultry.[1/] Most were compelled to compromise on simpler and more appropriate techniques.

At Petaluma, birds were divided into three grades—"Firsts," "Seconds," and "No. 1s." These are probably appropriate to the circumstances and apparently to the New Jersey grades which have been used widely in the East where the [illegible] Producers went for the lessons of experience.

To qualify as New Jersey No. 1, live birds must be well fleshed, full feathered [illegible] generally [illegible], free from [illegible] and [illegible] and external evidence of disease, with relatively large abdomens or broken bones not permitted.

To qualify as New Jersey No. 2, live birds must be fairly well fleshed, fairly well feathered, free from sores, bruises, deformities, broken bones and external evidence of disease (small blisters not exceeding one-half [illegible]).

The "Culls" would include any birds excluded from the first two grades but which were not classified as "unsuitable." At Petaluma it was expressly stated that "only birds obviously unfit for human consumption will be removed from coops graded No. 1s."

Difficulties in Grading.—In practice, the grading of live poultry is subject to a high degree of human error. The feathers conceal many bodily defects, such as bruises, blisters, etc., likely to impair the more basic quality of the bird when plucked. The depth of flesh can be estimated only by feeling each bird, this is laborious and difficult in coops holding large numbers. In consequence, more weight may be given to visual impressions. There is a popular suggestion [illegible] which had an adverse effect on their health. This view, however, has no record [illegible]

1/ Scanlan, John J., and Roy W. [illegible]son. [illegible]

2/ [illegible] Poultry Markets of New Jersey. "New [illegible] (C. M. 2/5)

for the possibility that their meat may be the more tender for the absence of muscle and sinew. Producers bore witness to the fallibility of the grading system at Petaluma and affirmed emphatically that birds drawn from the same quality level might be placed in a lower category one week than another if handled by a different grader. Many cooperatives have hoped that members would assist by grading their birds during the process of loading at the ranch. Some could be trusted to do this, but most organizations have encountered such fundamental divergencies in human judgment that they have had to check all lots before assessing the final grade.

A prime impediment to success in grading was the hurried nature of the operation when many lots arrived around the time the sale was about to begin or while it was actually in progress. Under pressure of this kind, inferior birds escaped detection in lots claimed to be top quality by the seller. As a corollary to such deception, coops arriving late from the same source on a future occasion might be downgraded as a group when they actually included enough superior birds to make up a coop of "good." The Petaluma auction made no specific claim as to tolerances, merely reaffirming from time to time that it recognized the weaknesses in its grading system, was doing its best to overcome them, and sought the cooperation of all its members. This approach was purely negative. Initially, the establishment of a completely new institution presented a fine opportunity to set up an "A plus" or "super" grade. Produce, awarded such a mark of distinction, would reap the benefits of the accompanying publicity. The auction would attract buyers supplying the more expensive markets. Instead, after the purchase had been completed, buyers were allowed the privilege of throwing out from crates graded "good" or "fair" birds with tumors, water on the abdomen or other defects which render them "inedible." Subject to concurrence of opinion with a representative of the auction, payment would not be required for birds rejected in this way. No provision was made for rejection from the "as is" category. These birds were bought as seen and all risk was assumed by the purchaser.

Grade Proportions.--The quantitative analysis of grading results at Petaluma which follows (table 4) is couched in terms of the weight handled in the four major classes--Leghorn hens, Leghorn broilers, colored fryers and colored hens. The less important categories--roosters, crossbreeds, etc.--were graded the same way. It seems justifiable to assume that the conclusions derived for the bulk of the trade should be applicable to them also. Table 4 shows the over-all division of sales between the various grades. Over half of the total was classified as "good"; one third, "fair"; and less than 10 per cent, "as is." If these figures are acceptable, then the suggestion that the auction dealt mainly in offgrade birds stands refuted. There is, however, the qualification that more second-quality birds might be offered here than in other markets, especially more than might appear in the supply schedule facing a buyer drawing only from selected ranches. It could be contended that the birds sent to the auction did not constitute an unbiased sample of the over-all supply. Frequently, the better birds in a flock were sold privately and only the culls were sent to the auction.

The proportional distribution of grades among the different classes of birds may be viewed in this light. Over half of the Leghorn hens were rated "fair" with quite a large proportion "as is." Since there were no pretensions that these birds were anything but culls from laying flocks which had passed their peak yield, there appears to be some reason for expecting that the majority would fall into this category. However, comparison with the grading percentages

[illegible]

[illegible]

[illegible]

TABLE 4

Grading, Petaluma Live Poultry Auction
September 27, 1948-September 26, 1949

Grade	Sales of four major classes of birds	
	weight in pounds	per cent of total
Good	957,580	56.2
Fair	585,654	34.4
As is	161,006	9.4
Total	1,704,240	100.0

for colored hens reveals a significant discrepancy. Unless it is maintained that Leghorns are kept in the laying pens to a point where their condition is actually lower relative to their prime than that of the average run of colored hens when sold, it would appear that the definition of quality is influenced by the weight per bird. Leghorns have a more efficient egg feed conversion ratio than the heavy breeds which use up a portion of their feed consumption in adding fat. There are, nevertheless, no real grounds for assuming that Leghorn hens in good health will actually lose weight during the period of egg production if they are properly fed. Leghorns stand up well to artificial conditions insofar as their meat quality is not appreciably impaired by strict confinement.

On the other hand, the ultimate criterion of whether a bird is salable or not is the amount of edible meat it bears. Since the breast proportions of a bird comprise the most important single element in grading decisions, some tendency ro rate offgrade colored birds above equally low-grade Leghorn hens is difficult to avoid. Inferior light birds seem exceptionally light by comparison with the colored breeds. Allowance should be made for the absence of abdominal fat. This adds considerably to the weight of many colored hens. Thus, Leghorns in normal condition for the breed should not be graded down simply because they do not appear so meaty as a colored bird of the same age.

Certain absolute criteria must be established. It should be made perfectly clear from the opening of a market whether all poultry will be graded by reference to an "ideal" meat bird or by reference to the generally accepted standards for the particular breed, sex or age class to which they belong. It would seem that only the latter is sufficiently specific to be meaningful.

Eighty-seven per cent of the Leghorn broilers were rated "good" and only 1.8 per cent was relegated to the "as is" category (table 5). There are no specific reasons for assuming that these would be other than straight-run birds and in this particular class poor quality birds would have little hope of survival. Since the per-capita value of the young Leghorn cockerel is negligible, producers do not continue to feed any which show signs of lagging behind the normal rate of growth. Since they are a joint product with the pullet chicks needed to maintain the egg industry at Petaluma, the auction should have been a natural source for Leghorn broilers.

[illegible]

[illegible] Periodical Lay Journal A[illegible]ion
[illegible] of [illegible] Administration [illegible], 1[illegible]

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

TABLE 5

Quality Grades for Live Poultry, Petaluma Auction

Class	Distribution by weight				Distribution by weight			
	Good	Fair	As is	Total	Good	Fair	As is	Total
	1,000 pounds				per cent			
Leghorn hen	275	388	103	766	35.8	50.7	13.5	100.0
Leghorn boiler	402	52	8	462	87.0	11.2	1.8	100.0
Colored fryer	223	98	44	365	61.1	26.9	12.0	100.0
Colored hen	58	47	6	111	52.2	42.3	5.5	100.0

In discussing colored fryers, other factors have to be taken into account. Fryers are fed primarily by specialized meat-bird raisers who purchase chicks for this specific purpose. They are among the highest priced products in the poultry market and the final sale price represents the total return to the rancher for his investment and trouble. Yet, the proportion of "good" birds is only 61 per cent as compared with 87 per cent in the class of broilers. The birds are older, admittedly, when marketed but should not have been subject to such influences that 26 per cent fell back one grade and 10 per cent was only classed "as is." It is unlikely that severest standards would be applied to a class which constituted one of the auction's most valuable products, the more so since there were so many older birds to point the contrast. It would seem, therefore, that the fryers sold through the auction were below the average run. Fryer specialists customarily sold their birds at the ranch or by contract for the flock. Rather than accept less than the agreed price for birds rated below the average in quality, the rancher would withhold them from the bargain and send them to the auction. The generality of this practice implies that even the birds graded "good" at the auction might have been someone else's "seconds."

Comparison With Los Angeles Results.--Since it is difficult to evaluate the grading at Petaluma without some yardstick for comparison, the results of a series of tests conducted in Los Angeles County have been summarized in table 6. No figures comparable to the Petaluma grading reports are available for the San Francisco area and the above table of data has been used in the absence of material from any source nearer at hand. However, production conditions in southern California are not markedly dissimilar from those prevailing in the North.

TABLE 6

Dressed Poultry Grading Tests--Los Angeles
(U.S. Grade Specifications)

Class of bird	Grade as per cent of class			
	A	B	C	No grade
Leghorn hen	76	20	2	1
Leghorn broiler	77	20	2	1
Colored fryer	82	15	2	1
Colored hen	85	14	1	--

Source of data:
Naden, Kenneth D. and George A. Jackson, Jr. "Quality of Fresh Chicken Meat. Causes of Downgrading of Chickens Handled in the Los Angeles Market Revealed in Representative Survey." Calif. Agr. Exp. Sta. California Agriculture. Vol. 5, No. 2, p. 10-11, 16. Feb. 1951.

These figures are considered provisionally since they represent the application of United States grade specifications to birds drawn from a limited geographical area. They are not accompanied by any measure of statistical significance. Moreover, detailed information on the relationship between live and

and dressed grades awaits the conclusion of further research. In the meantime "live" bird graders claim there is little difference.

These Los Angeles data indicate the following conclusions. If the grade standards applied at Petaluma were proportional to the United States specifications, then the general level of quality was low in three major classes of birds sold at the auction. Alternatively, Petaluma graders were governed by a concept of the ideal meat bird and adhered, in effect, to a different system altogether. The high proportion of Leghorn broilers graded good at the auction is noteworthy. The evidence points to the auctions being an exceptionally good market for this class of bird. Apparently fryer raisers were turning out a better class of birds than those sent to the auction and the Los Angeles readings included a larger proportion from this level. Fewer colored fowl were graded good at the auction than were marked "A" in the tests. If lower-than-average quality birds were in fact sent to the auction, then suitable recognition was granted at the point of grading.

Proportionately fewer Leghorn hens were graded "good" and many more "fair" and "as is" at Petaluma than in the Los Angeles "tests." Either Petaluma graders were exceptionally exacting in their standards or they were meting out consistent treatment to a lower quality product. The latter alternative would imply that even in the class of Leghorn hens the best birds did not appear at the auction. The absence of a lower quality limit for "as is" birds may have encouraged the sale of trash which the dealers cooperating in the Los Angeles tests would not accept at all.

Seasonal Variations in Grades.--This aspect of the subject exhibits two facets, neither of which can be discussed without far-reaching assumptions as to the other. It would be very useful to buyers to have some idea of the seasonal pattern in the distribution of birds between grades at different markets. They also need to know whether grade standards themselves moved up and down under the influence of seasonal changes in demand and supply. It is difficult to distinguish the relative parts played by variations in proportionate quality distribution within constant grade intervals and by seasonal deflection of grade intervals with quality proportions constant. Figures 4, 5 and 6 do not provide a complete answer but demonstrate interesting relationships when studied in conjuction with figure 3 showing the volume offered.

Grade proportions for each class were charted for the series of one hundred auction sales covering the various seasons of a complete year. This method was followed for the three most important classes but ceased to give satisfactory service when the number of birds in the class was small or fluctuated sharply.

Where only one or two lots were offered in a particular class on some sale days the grade assigned to them would be given undue importance. This happened frequently in sales of colored fowl and, in certain seasons, in sales of colored fryers. Thus, single observations, out of keeping with those adjacent, should be discounted if the volume represented is only small.

Thus, the grade percentages for Leghorn hens remained fairly constant through the year. The average deviation from the mean proportion approximated to 38 per cent for grade "good," 23 per cent for "fair" and 47 per cent for "as is." The proportion of good birds was highest in mid-October when most young pullets were coming up to take their places; in the spring from late February to April when egg prices were low and producers were occupied with young stock and

FIGURE 4
WEIGHTED AVERAGE PRICES : LEGHORN HENS, 1948-49

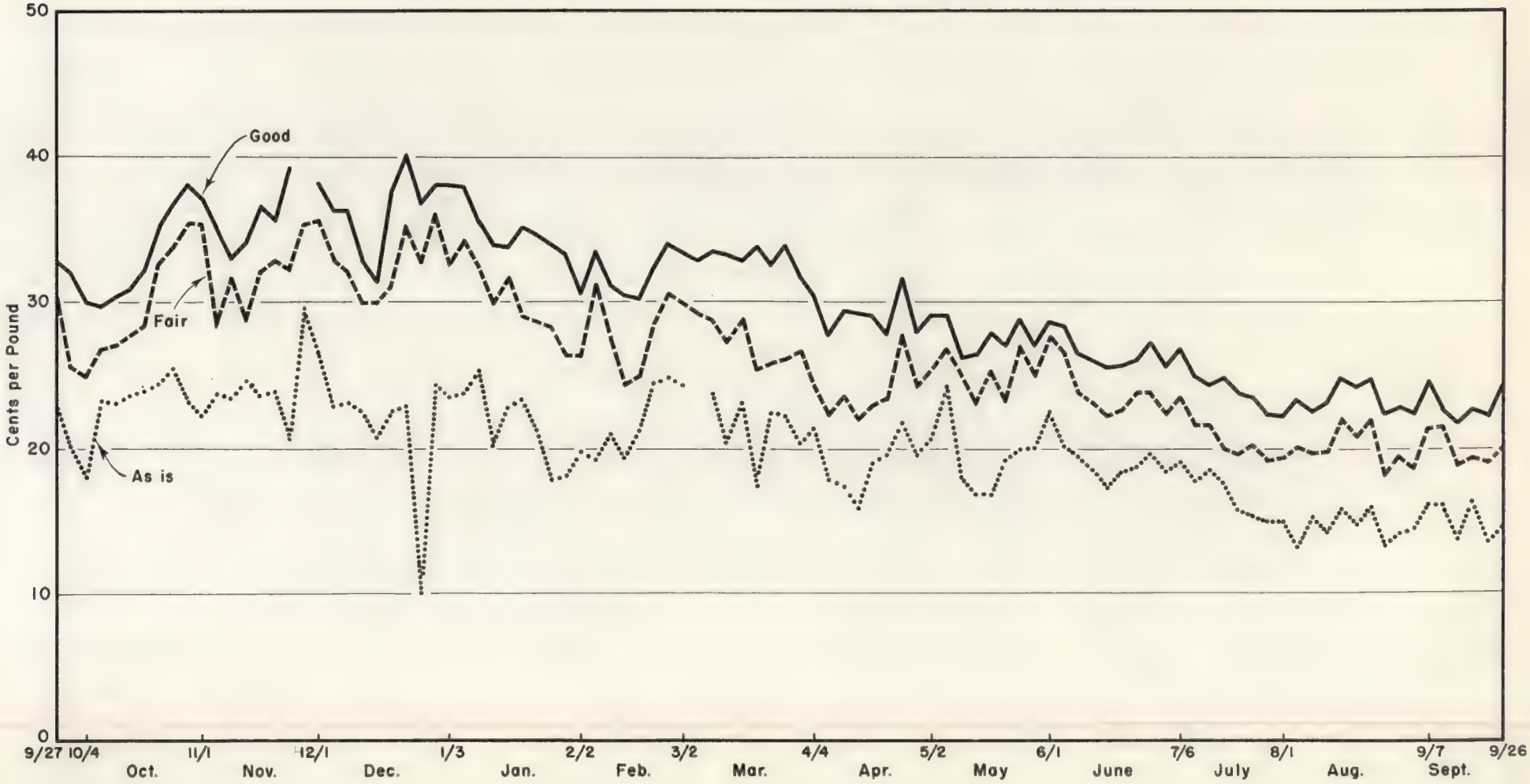


FIGURE 5
GRADES AS PROPORTIONS OF EACH CLASS
LEGHORN HENS

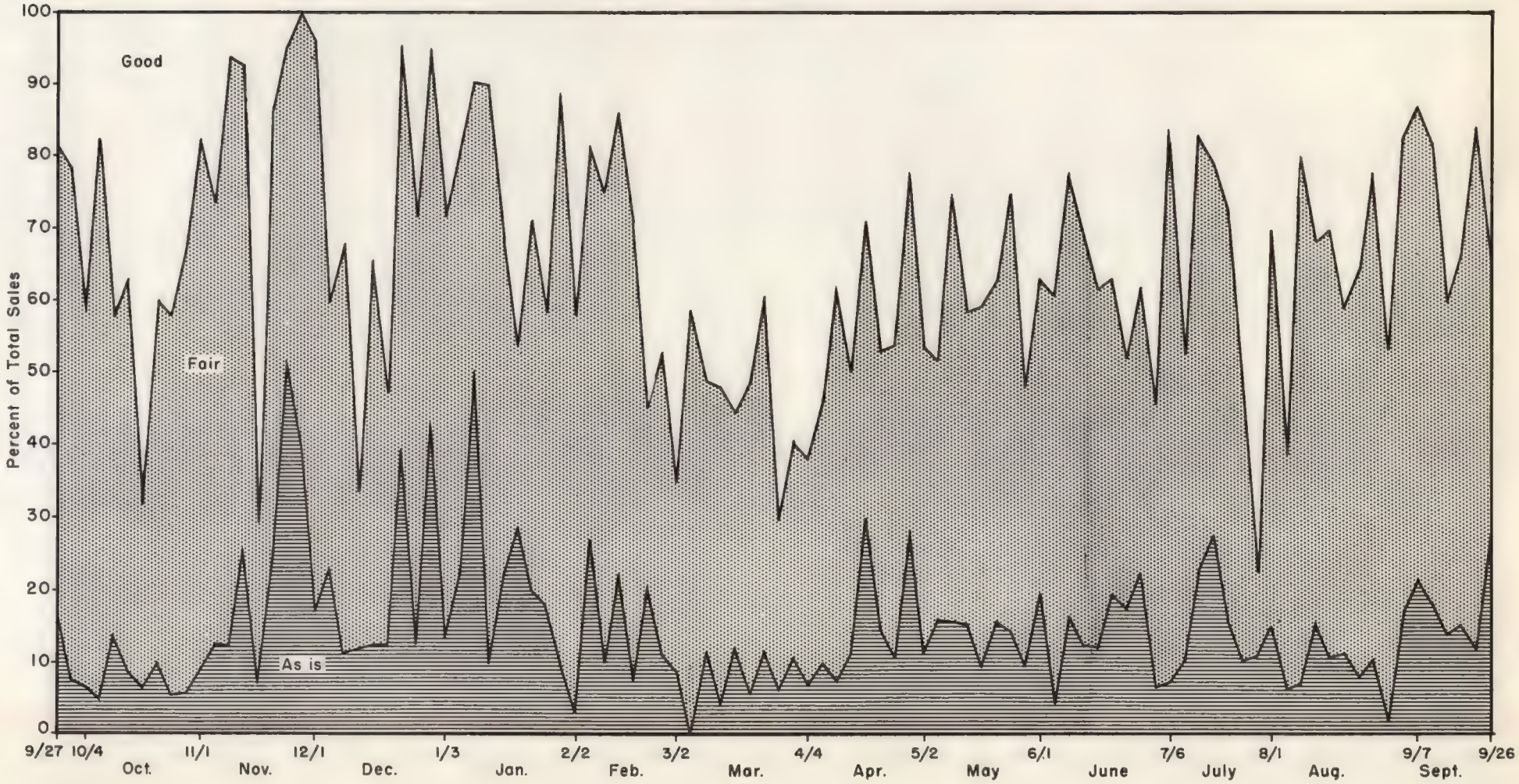
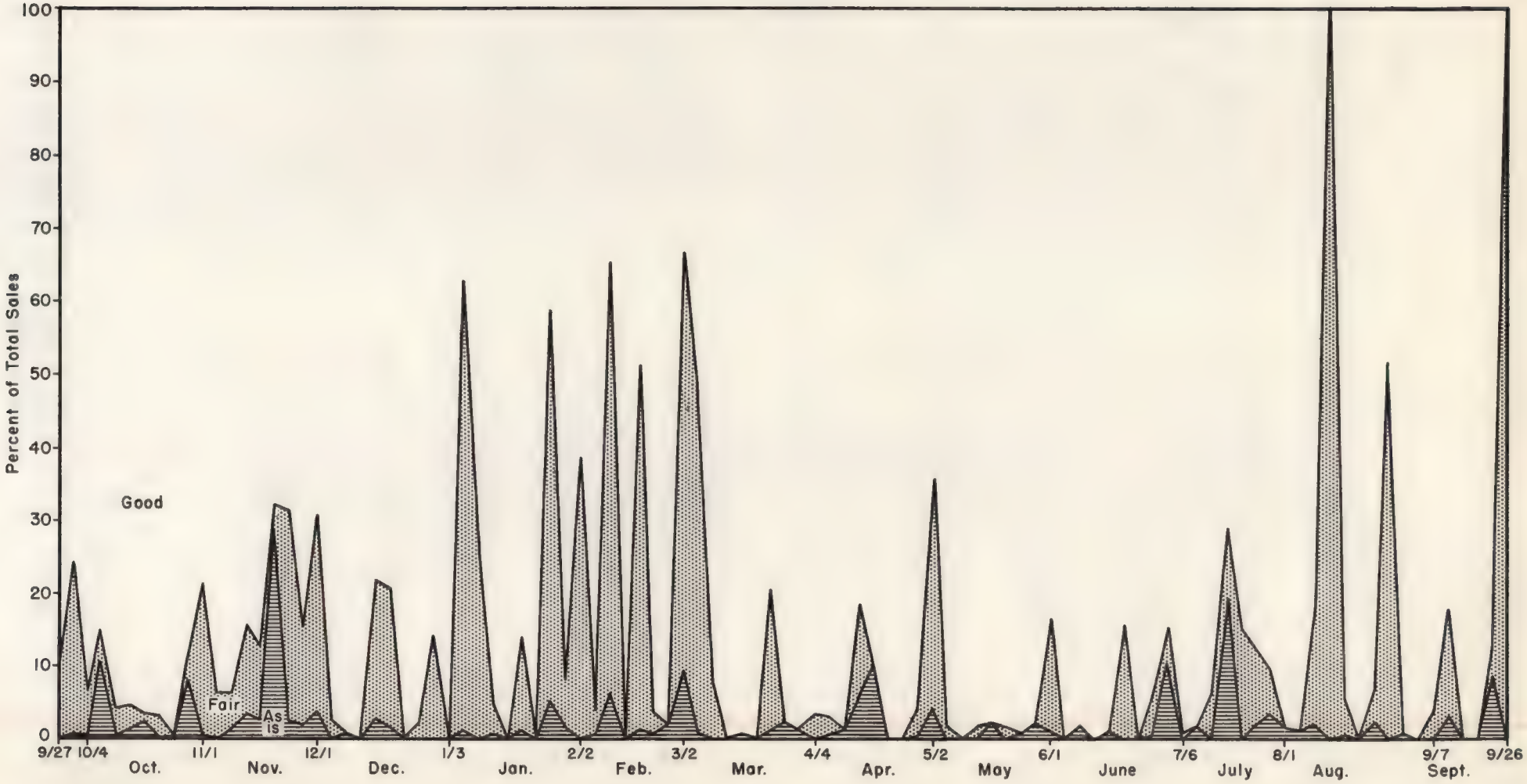


FIGURE 6
GRADES AS PROPORTIONS OF EACH CLASS
LEGHORN BROILERS



needed additional space for breeding. "Good" birds were less plentiful during the summer and very scarce around Thanksgiving and Christmas. It was at such periods that "as is" birds were most numerous. The bulk of the class fell in the intermediate grade which had a coefficient of variation of 27 per cent. This is low for a market where supply was completely uncontrolled and it would appear that regular buyers of these birds were quite well served.

Good quality Leghorn broilers also appeared with satisfactory regularity varying only an average 15 per cent from their mean proportion for the year. Since they constituted such a minor part of the supply of this class, the variation in the lower categories has not much significance. "As is" coops were offered but rarely and the percentage graded fair only became large when few birds were offered for sale. Such results speak well of the auction's grade policy. Standards were not relaxed in order that the grade "good" should always be represented.

The auction offered little encouragement to the buyers seeking specific grades of colored fryers. Coefficients of variation for colored fryers were as follows: grade "good," 50 per cent; "fair," 84.5 per cent; "as is," 165 per cent. Comparable figures for the class of colored hens would be very much higher still. There were, however, periods when the grade breakdown of colored fryers retained some consistency. The proportion of "good" quality in the total supply did not fall below 55 per cent between September 27 and mid-November and was again very high through February and March. During these times the auction seemed to be the more satisfactory outlet, since San Francisco prices were low. Outside these periods all the birds might be "good" one week and none the next. Such a development would not be likely to attract a substantial regular buying clientele. Rather, it would encourage the speculative type of dealer prepared to attend auctions with little to offer in the expectation that desertion by rival buyers would leave him free to purchase good birds at low prices when such consignments came along. Once such a tendency becomes crystallized and widely known, an auction is bound to go downhill. Buyer and seller alike are deterred from depending upon it for their transactions and it becomes a point of congregation for birds on which producers have least to lose and buyers with the minimum to give.

needed qualitywise space for breeding. "Good" birds were less plentiful during the summer and very scarce around Thanksgiving and Christmas. It was at such periods that "poor" birds were most numerous. The work of the clear full is the industry's more small had a contribution of varsitian on 27 per cent. This is why free market where supply was completely was crafted and it would appear that regular buyers of these birds were quite well served.

Good quality leghorn broilers were generally well satisfactory regularly, varying only in average. If you count from a week ago, production for this year, these days operations seem a little poor of the supply of this chase, the variations in the lower categories has much more significance. "Ne ir" chase were closed by range and the percentage needed than only became large when fowlings were offered for sale. Such results speak well, of the auction's risks policy. Producers were not relaxed to realize that the words "good" should always be respected.

The work of effective equipment to the system, supplying small to medium of colored varieties. Colored leghorns or broilers for chicken were as follows: grade "good" 50 per cent; "fair", 35.5 per cent; "bad", "poor" per cent. Comparable figures for the chase of colored hens showed by very much higher that. These were, however, probably the result of concern of farmers [illegible] some considerable. The proportion of "good" quality in the total supply [illegible] not really low 55 per cent between September 27 and December and was [illegible]

[illegible] to be made scientifically certain, hence the Farmers' cases were low. [illegible] these problems, all the bird's [illegible] "good" one week are more the next. [illegible] would not be likely to attract a substantial regular buying [illegible]. There, in which encourage the speculative type of dealer [illegible] [illegible] with ability to defer to the speculation that concession by [illegible] buyers would [illegible] to prevent [illegible] at times at long price when such [illegible] alone. Once such a tendency becomes organized and widely [illegible] on market it tends to be [illegible]. Buyer and seller alike are deterred [illegible] depending upon it for their transactions and it becomes a point of convenience [illegible] on which producers have learned to lean and buyers with the [illegible] to [illegible].

Prices

Producers turn to new markets with high expectations. They look for an immediate increase in average returns. In the eyes of individuals, the auction stood or fell by the prices it realized for their birds. One direct measure of their approval over the course of time lay in the volume of produce offered. In this the prevailing trend was downwards during the period under study and continued in the same direction subsequently. Thus, other things being equal, general producer dissatisfaction with the market at Petaluma is clearly in evidence. This is the over-all verdict.

A valuable contribution towards some more precise formulation of the grievance and diagnosis of its true causes would be prior agreement on some more exacting criteria for the evaluation of price levels. Judgment waits upon detailed examination of the different segments of the market and the interrelationships which link together the whole. Here the issue at stake is what requirements should be met by the price structure for it to be indicative of a good market.

Results would be considered more satisfactory and complaints be substantially reduced if certain general price relationships were maintained with reasonable regularity. Relative levels are not easily recognized. In general, however, producers would be more contented if they could rationalize price differences in terms of proportionate divergences in quality. If a grading system is employed, then prices should follow fairly closely the gradations it establishes. Where they do not, producers should know which of the various different interpretations of the factors behind these price discrepancies were supported by a scientific study of the available data.

Likewise, producers expect prices at the market they patronize to compare favorably with those obtained for similar products in competing markets. If differentials exist, then the prices should reflect some real advantage in time, place or form utility. A perfect market cannot be expected in the real world but the points of departure therefrom should be laid bare. This is a necessary preliminary to any proposal for their alleviation. A major locational differential is the cost of transportation to a consumer market and of depreciation en route. If poultry sold in the Petaluma auction were customarily transported to San Francisco for consumption, then a price in Sonoma County lower than that prevailing in the Bay area by the appropriate freight charge and shrinkage allowance would be quite acceptable. Theoretically, buyers and sellers would adjust the relative volume of purchases and sales in the different markets until this condition was obtained. Where they failed to achieve an approximate balance of supply and demand, speculative intervention for the profits of arbitrage would adjust prices accordingly.

Facilitation of such equilibrating machinery requires that both buyers and sellers have at their disposal reliable information on grade prices at all related markets. This is the function of the Market News Service as well as the private and more sensitive channels developed by professional dealers. Here is one source of rigidity in the matching of supply and demand. Because it is not the major part of their business, producers are, for the most part, amateurs in the techniques of bargaining. They are handicapped by difficulties in switching their product over time and place. They need not also be faced with such unnecessary obstacles as lack of market information outside their own immediate environment. It is within the scope and resources of the Market News Service to furnish such up-to-date and specific information that in this attribute, at least, buyer and seller might bargain on approximately equal terms.

Producers turn to new markets with high expectations. They look for an immediate increase in average returns. In the case of individuals, the success stood or fell by the prices it realized for their lands. One direct measure of their approval over the course of time lay in the volume of produce offered. In this the prevailing trend was downward during the world-wide study and continued in the same direction subsequently. Thus, other things being equal, evidence. This is the over-all verdict.

A valuable contribution towards some more precise formulation of the relevance and dimensions of its true causes would be proper appraisement on some more exacting criteria for the evaluation of price levels. Department units with detailed examination of the different aspects of the market and the interrelationships which link together the whole. Here is a field at where is what requirements should be met by the price structure for it to be indicative of a good market.

Results would be considered more satisfactory and complete as substantially reduced if certain personal price relationships were maintained with

However, producers would be more convinced if they could anticipate prices

supported by a considerable study of the available data.

Likewise, producers expect prices at the market they patronize to compare favorably with those obtained for similar products in other markets, at

place or, preferably, A product may be expected in the region but too varied of transport generation should be land here. This is a necessary prerequisite to any proposal for their development. A major consideration is the cost of transportation to a consumer market and of distribution on rent. If possible with in the Columbia, auction were substantially to be provided to San Francisco. For consumption, then a price in Seattle lower than that prevailing in the bay area by the appropriate freight charge and allowance allowance would be quite acceptable. Importantly, buyers and sellers would adjust the relative volume of purchases and sales in the different markets until this condition was obtained. Thus they failed to achieve an approximate balance of supply and demand, speculative intervention for the profits of arbitrage would adjust prices accordingly.

Facilitation of such market-to-market movement is one that both buyers and sellers have at their disposal dependable information on price trends and related markets. This is the function of the Market News Service as well as the private and more comprehensive channels developed by producers and dealers. Here is one source of reliability in the matching of supply and demand. However it is not the major part of their business, producers are, for the most part, amateurs in the techniques of bargaining. They are handicapped by distance in switching their product to a like and place. They need not also be fixed with such unnecessary obstacles as lack of market information outside their own home-town environment. It is within the scope and responsibility of the Market News Service to furnish such up-to-date and specific information that in this otherwise, at least, buyer and seller might bargain on approximately equal terms.

Average Prices.--The annual average prices received for the four leading classes of birds have been summarized in table 7 both by grades and for the class as a whole. The mean price per pound was weighted by the quantity sold at each auction in the process of dividing the total return for a particular category of birds by the total quantity sold. This type of average differs from one obtained by summing the average prices ruling at each auction and dividing by the number of sales. Whereas the latter might conceivably be a more instructive guide in selecting the most favorable market, the former reflects more closely the impact of prices on returns from the transactions which actually made up the auction's business.

TABLE 7

Weighted Average Live Poultry Prices
Petaluma Auction, 1948-49

Class	Weighted Average price			
	Good	Fair	As is	All sales combined
	cents per pound			
Leghorn hen	29.2	26.1	20.3	26.4
Leghorn broiler	31.2	26.6	20.0	30.4
Colored fryer	34.8	30.3	24.8	32.4
Colored hen	38.6	36.3	23.3	36.8

The figures in table 7 are self-explanatory. It may, however, be helpful to emphasize some aspects with interesting implications. Heavy breed hens, as a class, were sold at a premium over Leghorn hens of more than 10 cents per pound over the whole year. Whereas the former averaged 36.8 cents per pound, Leghorn hens only made 26.4 cents per pound. The younger birds sold for prices generally falling within this range. They were nearer to the colored fowl than to the Leghorn prices but at no time approached at all closely except in the "as is" grades. Thus, colored hens two or more years old were selling at prices 4-6 cents per pound higher than young colored fryers, a feature of the auction which merits close attention.

Leghorn broilers averaged over 3 cents per pound more than Leghorn fowl mainly because a larger proportion fell into the top grade. They did not maintain this differential at comparable levels of quality.

The highest average price during the year for grade "good" colored fowl was 38.6 cents per pound. Fryers in the same quality category ran some 4 cents per pound below this. The highest average price for "good" Leghorn broilers was 31.2 cent per pound. They usually sold for 2 cents per pound more than the best Leghorn hens. Average prices for Leghorn hens and broilers were much the same for the other two grades. Lower grade colored fryers maintained a price level some 4 cents per pound above that of comparable quality light birds. "Fair" colored fowl made an even 6 cents more than colored fryers of like grade but the few colored hens graded "as is" made a little less.

[illegible] the number of sales. Whereas the latter point conceivably be a [illegible] in selecting the most favorable market, the former reflects [illegible]

Table 7

[illegible] Average Live Poultry Prices

[illegible]

Class	[illegible]	[illegible]	[illegible]	[illegible]
Leghorn hen	[illegible]	[illegible]	[illegible]	[illegible]
Leghorn broiler	[illegible]	[illegible]	[illegible]	[illegible]
Colored broiler	[illegible]	[illegible]	[illegible]	[illegible]
Colored hen	[illegible]	[illegible]	[illegible]	[illegible]

The figures in table 7 are self-explanatory. It may, however, be helpful to [illegible] heavy breed hens, as a class, were sold at a premium over Leghorn hens of more than 10 cents per [illegible] The younger birds sold for prices [illegible] were [illegible] the colored fowl [illegible] at all [illegible] the [illegible] prices [illegible]

Leghorn broilers [illegible] 5 cents per pound more than Leghorn fowl [illegible] They did not maintain this [illegible] at comparable levels of quality.

The highest average price during the year for grade "good" colored fowl was 25.6 cents per pound. [illegible] in the same quality category ran some 4 cents per pound below this. The highest average price for "good" Leghorn broilers was 31.5 cents per pound. They usually sold for 2 cents per pound more than the best Leghorn hens. Average prices for Leghorn hens and broilers were equal, one [illegible] for the other two grades. [illegible] colored fowl maintained a price level some 4 cents per pound above that of comparable quality Leghorn fowls. "Fair" colored fowl sold at [illegible] 6 cents more than [illegible] of like grade but the [illegible] "as [illegible] a little less.

Seasonal Movements.--Figure 7 records the average prices obtained for different grades of Leghorn fowl during the period September 27, 1948-September 26, 1949. The absence of dealings in all qualities of Leghorn broilers and colored fryers at some sales and irregularity in the supply of colored fowl precluded the construction of meaningful charts for those categories. Prices for all classes were some 10 cents per pound lower in September 1949 than a year earlier. This decline was less serious, relatively, in prices of Leghorn hens than in those of the three other major classes distinguished at the auction. However, this trend is not out of line with that in the San Francisco prices for the same types of poultry and can thus be attributed to over-all supply and demand conditions in the area rather than to circumstances deriving from the auction market alone.

Prices for Leghorn hens were lower in September by 8-9 cents. They rose some 5-6 cents from late October to the end of December, fell back gradually through January and February, but straightened out in March and remained higher than prices of broilers and fryers until May. For six or eight weeks during this period, prices for all classes were confined within the same narrow range. The first weeks of July, however, saw a defnite divergence. Leghorn hen prices continued to drop back slowly while the others experienced a rise. Peak prices for Leghorn hens came in late October (38 cents), late November and December 22-29 (40 cents) when, however, very few lots were on offer. Suppliers kept such birds off the market at this time, a policy which broiler men should have had in mind when they purchased their chicks. The lowest prices for good Leghorn hens (approximately 22 cents) were recorded in July.

Prices of Leghorn broilers and colored fryers pursued very similar courses through the year, except for two periods of approximately two months each. From December to February and from May to July, colored fryers were higher by 6-8 cents, rising on occasion to 10 cents. Broiler prices reached a peak of 49 cents in September 1948. This height was not approached again until the same period a year later. This was clearly the best season for broiler producers. Sharp falls in price implied a complete absence of interest in such produce at Thanksgiving and Christmas. The highest prices obtained for colored fryers were 46.7 cents on September 27, 1948, 41 cents at the beginning of December and again towards the end of June.

Days of exceptionally low prices occurred at intervals during the spring. Explanations for these phenomena may be found in special supply and demand relationships revealed by the sales records. On January 12 a reduced quantity of "good" fryers averaged 6 cents less than "good" birds the previous week owing to a great increase in the quantity of "fair" birds available on the same day. Prices for "good" and "fair" were very close together at this time. Evidently "good" and "fair" fryers were effective substitutes for each other and the respective demands were directly interrelated. Low prices on February 14 reflected a trebling of the market supply on that day as compared with the previous auction. The fall of 5 cents in the price of "good" birds between May 2 and May 4 may be attributed, however, to precisely the reverse effect. Buyers must have overbought on May 2 when 4,000 pounds were sold since they bid 5 cents less for one-tenth as many birds two days later. Supplies of lower grade birds showed no significant change between these two dates, so presumably their influence was neutral.

Colored fowl were not marketed in sufficient bulk and regularity to furnish bases for more than tentative conclusions. Evidently, they were always worth 10 cents more than Leghorn hens. This margin rose to 12 cents in the spring.

[illegible] prices of [illegible] during [illegible] 26, 1949. The absence of [illegible] of [illegible] and colored fryers at some sales and irregularity in the supply of colored fowl prevented the computation of meaningful [illegible] for those classes. Prices for [illegible] were [illegible] cents per pound lower in September 1949 than a year earlier. This decline was less serious, relatively, [illegible] than in those of the three other major classes [illegible] at the auction. However, this trend is not out of line with that in the [illegible] prices for the same class of poultry and can thus be ascribed to overall supply and demand conditions in the area rather than to circumstances deriving from the [illegible].

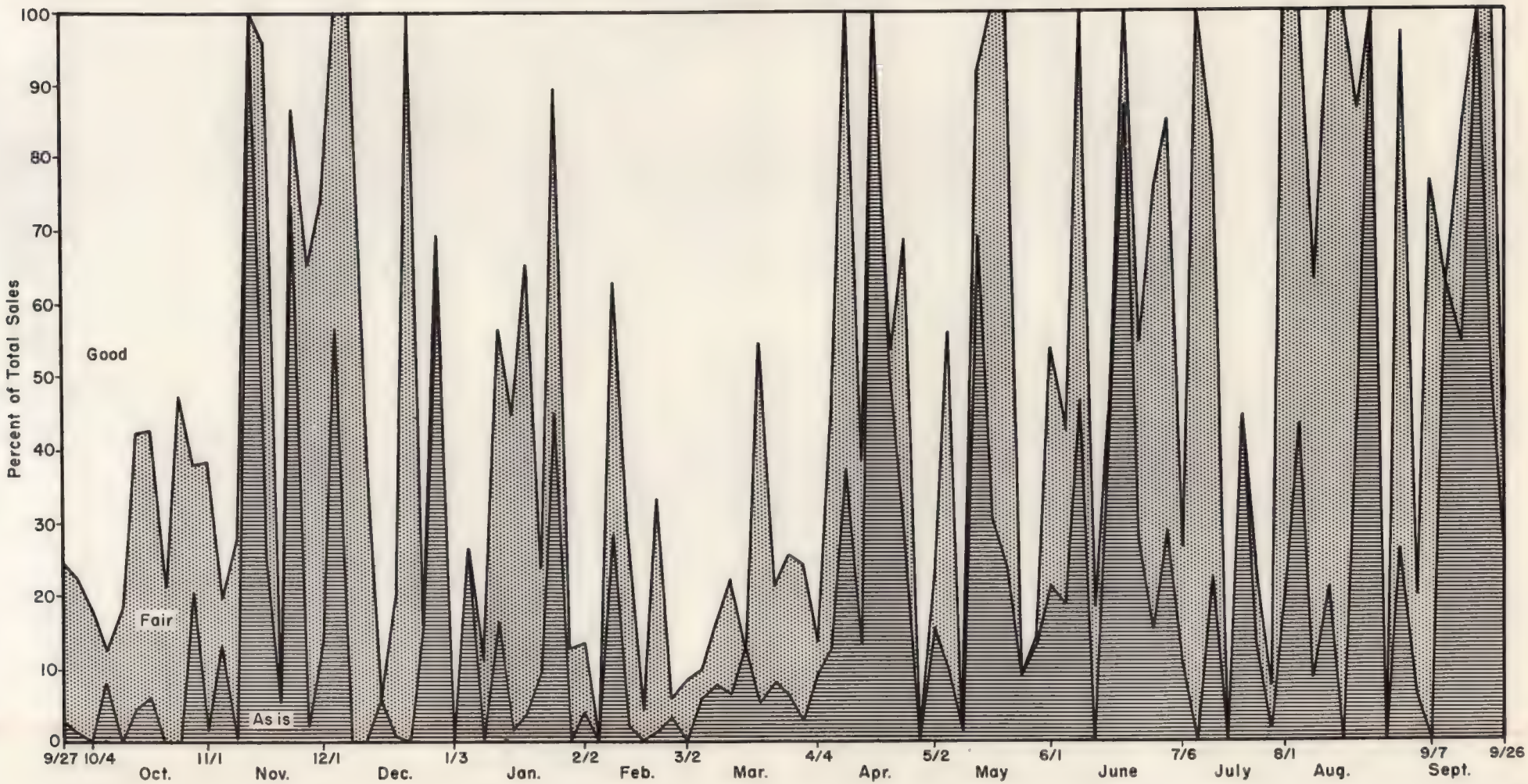
Prices for Leghorn hens were lower in September [illegible]. They were [illegible] cents from [illegible] October to the end of December, [illegible] January and February, but [illegible] out [illegible] remained [illegible] [illegible] of broilers and fryers [illegible]. For [illegible] this period, prices for all classes were confined within [illegible] range. The [illegible] of [illegible], however, [illegible] definite [illegible]. [illegible] prices continued to drop back slowly [illegible] a [illegible], [illegible] for Leghorn hens came in late October (37 cents). [illegible] (40 cents) when, however, very few lots were [illegible]. [illegible] such birds [illegible], a [illegible] which [illegible] and when they purchased their orders. The [illegible] for good Leghorn hens (approximately 37 cents) were recorded [illegible].

[illegible] through the year, except for two periods of approximately two months [illegible]. From [illegible] to [illegible] and [illegible] to [illegible], [illegible] 34 cents, rising on occasion to 40 cents. Broiler prices reached a peak of 49 cents in September 1948. This height was not approached during the same period a year later. This was clearly the best season for [illegible]. [illegible] falls in price [illegible] a [illegible] of interest [illegible] Thanksgiving and Christmas. The highest prices observed for colored fryers were [illegible] cents on September 27, 1948, [illegible] cents at the [illegible] of December and again [illegible] of June.

[illegible] of [illegible], [illegible] prices [illegible] at [illegible]. [illegible] explanations for these phenomena may be found in [illegible]. [illegible] price records [illegible] a reduced [illegible] of "good" [illegible] 10 cents less than [illegible] the [illegible] owing to a great increase in the quantity of "fair" [illegible] available on the [illegible]. [illegible] for "good" and "fair" were very close together at this time. [illegible] "good" and "fair" [illegible] effective substitutes for each other and the respective demands were [illegible]. [illegible] indicated a [illegible] of the market [illegible] as compared with the previous auction. The [illegible] equal to the price of "good" birds between May 2 and May [illegible] may be [illegible], however, [illegible] the [illegible] must have [illegible] 1,000 pounds [illegible] but [illegible] cents less for [illegible] as many [illegible]. [illegible] of lower grade birds [illegible] between these two dates, [illegible] their [illegible] was [illegible].

Colored fowl were not marketed in sufficient bulk and regularity to furnish bases for more than [illegible] comparisons. [illegible] 10 cents [illegible] this [illegible] cents in [illegible].

FIGURE 7
GRADES AS PROPORTIONS OF EACH CLASS
LEGHORN FRYERS



Offerings were most irregular at this time when most hens were in full egg production. During the summer, prices of colored fowl tended to coincide with those for comparable classes of broilers and fryers but exceeded them by 3-4 cents from late August through to the end of September. During this period of keen competition for the available supply, prices for "fair" quality birds were forced up to that of "good," one of the surest indicators of unsatisfied demand.

Prices declined from September to December by approximately the same proportion as supplies increased and straightened out again as supplies fell off during the winter. The upturn in prices from June onwards may be related to a slackening off in supplies to the auction during this period.

Most of these variations in trend reflect recognized changes in supply. Leghorn hen prices stood at a high level during the months when egg prices were at their peak and declined steadily as the rate of culling quickened with the seasonal fall in the value of eggs and the end of the natural laying season. Movements in the prices of fryers and broilers cannot be interpreted as easily. More information is needed on seasonality of demand for table birds in California. Apparently, competition with the turkey during the holiday seasons of Thanksgiving and Christmas was a major disturbing influence. At the same time, flucuations in the supply of birds sent to the market on particular days of sale were responsible for some of the more extreme instances of price instability. This tendency was especially important in the sale of colored fryers. Certainly, the charts of grade prices and sales volume furnish ample evidence of inverse correlation between supplies and prices in accordance with accepted economic theory. The movement of prices at the auction reflected both external trends and the auction's own intraweekly supply pattern. Supply changes seem to be the dominant factor, certainly in the short run. Grounds have already been advanced for assuming that demand in this region was relatively constant (p. 22).

TABLE 8
Grade Price Differentials
Petaluma Auction 1948-49

Class	Differential	
	Cents per pound	
	Good/Fair	Fair/As is
Leghorn hen	3.11	5.77
Leghorn broiler	4.58	6.54
Colored fryer	4.51	5.47
Colored hen	2.31	13.03

Grade Price Differentials.--The figures set out in table 8 have been derived from the data presented in table 7. They are differences between weighted average prices for all auction sales during the year. This is in contradistinction to a simple arithmetic mean of the average differential at each individual sale. The latter method would exaggerate the importance of sale days when only a few birds of the relevant grade were on offer. This information should serve as a useful measure of the weight attached by buyers to class grading at the auction. In an ideal framework, the differentials should be

[illegible] market, [illegible] the fact that [illegible] patterns of colored food [illegible] demand for economic wise [illegible] for economic classes of broilers and [illegible] [illegible] [illegible]

directly proportional to the difference in utility expressed by the grade. They would also be relatively constant over time, subject to some narrowing and widening in response to changes in demand, vis-a-vis, available supply.

Differentials between "good" and "fair" grades were narrowest among the older birds, especially the colored hens. A spread of only 2.51 cents per pound is additional evidence of the strong demand for heavy hens. In regions where Leghorns comprise the bulk of the fowl population, this special demand for the heavy meat bird is a recognized feature.1/ Though still narrow compared with that found in the younger classes, the differential between "good" and "fair" Leghorn hens was 35 per cent wider.

The comparable quality premiums for Leghorn broilers and colored fryers at 4.58 and 4.51 cents, respectively, were very close. These differentials, which showed remarkable consistency, speak well for the efficiency of the grading in these classes carried out at the auction under peculiarly adverse conditions.

As might be expected, the average differentials between "fair" and "as is" grades were generally wider. Because the lowest grade was almost all-inclusive, a wider range of quality was found there than in other grades with more specific requirements. Even here the effective pattern was quite consistent. In view of the small volume of sales they represent, only limited significance should be attached to the wide gap of 13 cents between "fair" and "as is" colored hens. If accepted at their face value, the data support the remark of one prominent buyer of heavy hens who suggested that consumers of this class of birds were only interested in those carrying plenty of rich fat meat. For birds conforming to this requirement, there was a special market at prices considerably higher proportionally than those paid for other types of poultry with equal quality ratings. If, however, the birds did not conform, then the buyers dealing in this market ceased to be interested. The outlets available would be the same as those open to low-grade birds of lighter weight and the price would be reduced accordingly.

Within narrow ranges, the differential between "fair" and "as is" prices was greater for Leghorn broilers (6.54 cents) than for Leghorn hens and colored fryers. This may be indicative of a tendency for supply to surpass demand and thus place more emphasis on quality distinctions, since buyers had an ample supply of birds from which to make their choice. The data for Leghorn hens suggest the opposite situation. A margin of 5.77 cents between "fair" and "as is" is not large whereas, many producers bargaining at the ranch sold their lowest grade birds at only half the price agreed upon for the general run.

Seasonal Changes in Grade Differentials.--The spread between the price lines on figure 7 reflects the magnitude of the grade differential and presents a very clear picture of the situation prevailing for Leghorn hens. The differential between "good" and "fair" widened from 3 to 4 and 5 cents occasionally at individual auctions until the middle of January. From this time onwards, prices were always slightly on the downgrade and the margin widened to 5, 6 and 7 cents. This relationship continued until mid-April when the price of lower

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1/ Naden, Kenneth D. Poultry Pricing in the Los Angeles Area, Berkeley, 1949. pp. 19, 30. (Calif. Agr. Exp. Sta. Mimeo. Report 101)

widening in response to changes in demand, vis-a-vis, available supply.[1]

Differentials between "good" and "fair" grades were narrowest among the older birds, especially the colored hens. A spread of only 1.1 cents per pound is additional evidence of the strong demand for heavy hens. In regards which Leghorns comprise the bulk of the fowl production, this special demand for the heavy meat bird is a reconstituted feature. Though still narrow compared with that found in the younger classes, the differential between "good" and "fair" Leghorn hens was 35 per cent wider.

at 4.50 and 4.71 cents, respectively, were very close. These differentials, which showed remarkable consistency, speak well for the efficiency of the grading in these classes carried out at the auction under generally adverse

As might be expected, the average differentials between "fair" and "as is" grades were generally wider. Because the lowest grade was almost all-inclusive, a wider range of quality was found there than in other grades with more specific

of the total volume of sales they represent, only limited significance should be attached to the wide gap of 12 cents between "fair" and "as is" colored hens. If accepted at their face value, the data support the premium of one prominent buyer of heavy hens who suggested that consumers of this class of birds were only interested in those carrying plenty of rich fat meat. For birds conforming to this requirement, there was a special market at prices considerably higher proportionally than those paid for other types of poultry with equal quality ratings. If, however, the birds did not conform, then the buyers dealing in this market ceased to be interested. The outlets available would be the same as those open to low-grade birds of lighter weight and the price would be

Within narrow ranges, the differential between "good" and "as is" prices was greatest for Leghorn broilers (6.44 cents) than for Leghorn hens and colored fryers. This may be indicative of a tendency for supply to surpass demand and thus place more emphasis on quality distinctions, since buyers had an ample supply of birds from which to make their choice. The data for Leghorn hens showed the opposite situation. A margin of 5.77 cents between "fair" and

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1/ Nelson, Kenneth D. "Poultry Marketing in the Los-Angeles Area." pp. 19, 20. (Calif. Agr. Exp. Sta. Circ. Berkeley, August 1[illegible])

grade birds swung up to within 1-2 cents of that for grade "good" and maintained this level for almost two months before settling down again at a regular 3-cent differential.

The same observations do not apply to changes in the "fair"/"as is" differential. Through fall and winter "as is" prices were from 8-12 cents below those of grade "fair" at a time when the price for the class was at is maximum for the year. In February, "as is" prices swung up with the class as a whole and remained for the remainder of the year in much closer proximity to "fair."

Weekly changes in grade differentials within the other classes cannot be interpreted so expeditiously since frequently the volume of birds offered was too small to give them stability. The differential between "good" and "fair" Leghorn broilers fluctuated wildly during the period of disturbed marketing preceding Christmas, levelled out at 2.3 cents during January and widened again in March before returning to its January stature through the summer. The differential between "fair" and "as is" also varied sharply under the influence of marked fluctuations in supply at this grade level.

On occasions, lower quality supplies were bid up to and above the price paid for lots assessed at a higher grade. Such a tendency was disturbing to both buyers and sellers. It became evident when supplies of good quality produce were restricted or were offered only during the earlier stages of the auction. Buyers holding off these initial lots as a matter of policy might have definite commitments which later compelled them to compete for lower grade birds of the same class and bid them up to unexpectedly high prices. Further, "good" birds then arrived late after buyers' fixed requirements for the day had already been met and were sold at prices disproportionately lower than their quality deserved. Such reversals of logical economic relationships could usually be attributed to timing in the order of sale, miscalculations of expected supply and the like hazards.

Table 9 exhibits several examples of this phenomenon. The differential between "good" and "fair" ranged from over 10.0 cents per pound to -3.70 cents. It was negative on three separate occasions and there would be other instances which have been obscured in the process of averaging. Subject to such irregularities, the average prices for "good" and "fair" maintained a stable relationship all through the year. On the other hand, the differential between "fair" and "as is" prices fluctuated significantly. "As is" prices went far below those of the better grades in late September, for a long period in December, from May to July when they failed to rise with the others, and continued on the same approximate level to the end of the year.

Exact measures of the over-all degree of variation in these differentials can be computed statistically and some pertinent figures are presented in table 9. The differential between "fair" and "as is" Leghorn fowl prices was clearly the most consistent with a variation of only one-third. That between "good" and "fair" Leghorn fowl is of the same order and is followed at some distance by those for colored fryers. Broiler differentials varied rather more, especially those between the two lower grades. "Good"/"fair" and "fair"/"as is" differentials for colored fowl fluctuated by average percentages of 126.4 and 105.1, respectively.

This information is important to producers making plans on the basis of expected price relationships. Whereas an average deviation of less than 50 per cent might not seem excessive, one exceeding 100 per cent might give

grade birds seldom up to within 1-2 cents of that for grade "good" and maintained this level for almost two months before settling down again at a regular 3-cent differential.

The same observations do not apply to changes in the "fair"-"as is" differential. Through fall and winter "as is" prices were from 1-12 cents below those of grade "fair" at a time when the price for the class was at its maximum for the year. In February, "as is" prices swung up with the class as a whole and remained for the remainder of the year in much closer proximity to "fair."

Weekly changes in grade differentials within the other classes cannot be interpreted so explicitly since frequently the volume of birds offered was too small to give it a reality. The differential between "good" and "fair" [illegible] preceding Christmas, levelled out at 2-3 cents during January and widened again in March before returning to the January pattern through the summer. The differential between "fair" and "as is" also varied sharply under the influence of marked fluctuations in supply at this grade level.

On occasions, lower quality supplies were bid up to and above the price paid for less dressed at a higher grade. This a tendency was distributing to both buyers and sellers. It has been [illegible] supplies of good quality [illegible] were relocated or kept offered only during the earlier stages of the season. Several holding off these initial lots as a matter of policy might have indicate the opportunities which later compelled them to compete for lower grade birds of the same class, and bid them up to unprecedentally high prices. Further "good" birds that arrived late after buyers' fixed requirements for the day had already been met and were sold at prices disproportionately lower than their quality deserved. Such reversals of logical economic relationships could usually be attributed to timing in the order of sale, miscalculations of expected supply and the like hazards.

Table 2 exhibits several examples of this phenomenon. The differential between "good" and "fair" ranged from over 10.0 cents per pound to -2.7 cents. It was sensitive to these separate occasions and there would be only a hypothesis which have been offered to explain of avoiding. Subject to such irregularities, the average prices for "good" and "fair" maintained a stable relationship all through the year. On the other hand, the differential between "fair" and "as is" grades fluctuated significantly. "As is" prices went for below those of the better grades in late September, for a long period in December, from May to July when they failed to move with the others, and continued on the same approximate level to the end of the year.

Exact measures of the over-all degree of variation in these differentials can be computed statistically and some pertinent figures are presented in Table 3. The differential between "fair" and "as is" [illegible] was clearly the most consistent with a variation of only one-third. That between "good" and "fair" [illegible] of the same order and is followed as some distance by those for dressed lively. Unsorted differentials varied rather more, especially [illegible]

This information is important to producers making plans on the basis of expected price relationships. Whereas an average downgrade of loss than 50 [illegible] per cent might not seem excessive, one exceeding 100 per cent might give it

TABLE 9

Variations in Price Differentials Between Live Poultry Grades
Petaluma Auction 1948-49

	Leghorn hen		Leghorn broiler		Colored fryer		Colored hen	
	Good/Fair	Fair/As is	Good/Fair	Fair/As is	Good/Fair	Fair/As is	Good/Fair	Fair/As is
Number of readings	99	99	64	44	69	67	52	42
	cents per pound							
Average margin	3.11	5.77	4.58	6.54	4.51	5.48	2.31	13.03
Average deviation	1.29	2.0	4.05	8.81	3.59	3.77	2.92	13.69
	per cent							
Coefficient of variation	41.5	34.7	88.4	134.7	79.6	68.8	126.4	105.1

producers the impression that prices for particular lots could vary so much between auctions that planning would be hopeless, that the range of variation between successive sales would be unpredictable and marketing through the auction was a matter of luck. To producers dependent on poultry sales for their total income such a conclusion would constitute good grounds for seeking alternative outlets. Evidently many broiler and fryer raisers whose livelihood derived from sales of live birds considered the risk too great.

Whereas this state of uncertainty prevailed for some categories of produce, prospects for Leghorn hens were much more stable. In part this seems to be a function of the volume of produce offered at each sale. Successive increases enabled the auction to approach more nearly the attributes theoretically desirable in a successful market.

Comparative Price Levels--San Francisco and Petaluma Auction.--In this section of the study, the prices paid for live poultry in the city of San Francisco are compared with those paid in the main center of production. The San Francisco price refers to bargains between the larger wholesale processors and hucksters, and producers who deliver their birds to the killing plant. At Petaluma some producer-owned birds were sold by auction to hucksters who would truck the birds into San Francisco for resale and also to dealers carrying a porportion of direct retail business. These latter could afford to pay a higher price than the wholesaler expecting to sell again in bulk. Excluding the influence of this factor, the "recognized" differential between Petaluma and San Francisco has been 1-1½ cents per pound in recent years. The primary interest lies in seeing how far this differential is maintained between the realized prices in these markets over a twelve-month period.

The "approximate" character of the prices available must, however, limit the possibility of exact conclusions. The Petaluma prices are weighted averages for all the birds of the designated class and grade sold on the specified day. They are subject to seasonal variations in the number of birds allocated to different grades and to variations between auctions in the proportions of retail and wholesale demand bearing upon the price level. On some days prices were bid up exceptionally by buyers with specific commitments.

On the other hand, the San Francisco figure is the arithmetic mean of a published range of prices which purports to cover the likely meeting of supply and demand whether or not actual transactions take place. It refers to number 1 quality birds, graded "AA" and "A" according to the United States schedule. Although standards showed some flexibility by season and quantity of birds available, this flexibility probably reflects much the same pressures as at Petaluma. In any event, if comparison is to be attempted at all, it will have to be made between number 1 quality at San Francisco and grade "good" at Petaluma.

The auction prices at Petaluma have been charted against the San Francisco price of the same day for the four major classes traded. They appear as figures 8-10.

Leghorn Hens.--Table 10 summarizes in average form the differential between Petaluma and San Francisco prices for comparable grades of poultry on the days when auction sales were held. Two prices for Leghorn hens are issued by the Market News Service; namely, for birds under four pounds in weight and for those weighing four pounds and over. The latter averaged 1 cent more. Both followed

producers the impression that prices for particular lots could vary so much between auctions that planning would be hopeless, that the range of variation below a comparative sales would be [illegible] and [illegible] through the auction was a matter of luck. To producers dependent on poultry sales for their total income such a conclusion would constitute good grounds for seeking alternative outlets. Evidently many broiler and fryer raisers whose livelihood derived from sales of live birds considered the risk too great.

Whereas this state of uncertainty prevailed for some categories of produce, prospects for leghorn hens were much more stable. In part this seems to be a function of the volume of produce offered at each sale. Successive increases enabled the auction to approach more nearly the ideal, as theoretically [illegible].

[illegible]—In this section of the study, the prices paid for live poultry at the [illegible] of San Francisco are compared with those paid in the main centers of production. The San Francisco price relates to bargains between the larger wholesale processors and retailers, and producers who deliver their birds to the killing plants. At Petaluma the producer-owned birds are sold by auction to [illegible] who would truck the birds into San Francisco for resale and also to dealers covering a proportion of direct retail business. These latter could afford to pay a higher price than the wholesaler operating at full scale in bulk. Reflecting the influence of this factor, the "recognized" differential between Petaluma and San Francisco has been 1-1½ cents per pound in recent years. The primary interest lies in seeing how far this differential is maintained between the realized prices in both markets over a two-and-a-half [illegible].

The "[illegible]" character of the prices available must, however, limit the possibilities of exact comparisons. The auction prices are weighted averages for all the birds of the designated class and grade sold on the specified days. They are subject to seasonal variations in the number of birds allocated to different grades and to [illegible] in the proportions of retail and wholesale demand bearing upon the price level. On some days prices were held up exceptionally by buyers with specific commitments.

On the other hand, the San Francisco figure is the arithmetic mean of a published range of prices which purports to cover the likely meeting of supply and demand whether or not actual [illegible] took place. It appears to refer to number 1 quality birds, graded "AA" and "A" according to the United States standards. Although auction grades apply (nominally) to weight and quality, of birds accepted, this flexibility probably reflects more the real character of the [illegible]. In any event, if comparison is to be attempted at all, it will have to be made between number 1 quality at San Francisco and grade "good" at Petaluma.

The auction prices as realized have been compared against the San Francisco price of the same day for the four major classes traded. They appear as figures 5-10.

Leghorn Hens.—Table 11 summarizes in averages form the differential between Petaluma and San Francisco prices for comparable grades of poultry on the days when auctions were held. Two classes of leghorn hens are [illegible] by the market news reporting agency, for birds under four pounds in weight and for those weighing four pounds and over. The latter averaged 1 cent more. Both followed

the same general trend in prices through the year. The price for the heavier bird has been charted against the Petaluma prices. Since half the Leghorn hens sold at Petaluma were graded "fair," those graded "good" would tend to fall in the heavier weight category. The information available does not permit calculation of average weights for the birds sold through the auction.

Characteristically, the San Francisco price series tended to remain on the same level for long periods as compared with Petaluma prices. More variation can be expected in series determined by competitive bidding for small lots than from one based upon the bargains concluded by a small number of large operators. Nevertheless, it raises the question of sensitivity in the reporting of the San Francisco prices. Are the terms of real transactions accurately reflected or should they be regarded as cautious estimates made by people who preferred to state the previously published price without change? They may not have intended to adhere to it themselves but did not wish to take the lead in setting a new level which would immediately become known to all their competitors and thus affect their bargaining position in current or immediately imminent dealings.

If these prices constitute a fair statement of the market, then a feature which stands out immediately when any comparison is made is the seasonal change in the relative position of the two price levels. Over the whole year, the San Francisco price stands 1 cent higher than that prevailing at Petaluma and this might be regarded as a fairly accurate reflection of the transport and resale margin between producing and consuming centers some fifty miles apart. During the six months, September 1948 to Marh 1949, Petaluma prices frequently ran much higher, however, than those prevailing in San Francisco and averaged 0.12 cents per pound more over the whole period. From then until September they were consistently below San Francisco levels, often by several cents per pound. The mean difference during these six months was 2.39 cents to the advantage of San Francisco. In part, this was a direct consequence of closer proximity to the influence of movements in the price of eggs through the year. Culling was continuous in highly commercial areas such as Petaluma, but its intensity was heightened when egg prices fell. During the months when egg prices were at their peak, prices for hens in Petaluma were higher relatively than in San Francisco. Months when eggs declined in value displayed precisely the opposite relation.

A distinct lag between the San Francisco and Petaluma series can be discerned in the charts portraying the movement of Leghorn hen prices, especially during the first half of the year. City prices rose and fell a few days later than prices at Petaluma. Generally, they moved in the same direction but rarely so far. Part of this tendency may be attributed to the method of formulating the San Francisco published price; part may reflect an economic situation where, in the short run, supply was much more variable than demand. City processors catering to a fairly constant and predictable consumption pattern were slower in changing their prices than dealers drawing on supplies which varied markedly from sale to sale and which, once thrown onto the market, could not easily be withdrawn.

The general tendency for Petaluma prices to vary much more than those reported in the Market News for the San Francisco wholesale market must be attributed to the peculiar character of the auction market. Numerous producers decide independently to market specific quantities and types without any

the same general trend in prices through the year. The price for the heavier bird has been charted against the Petaluma prices. Since half the hatchery hens said to Petaluma were graded "fair," these graded "good" would tend to fall in the heavier weight category. The information available does not permit calculation of average weights for the birds sold through the auction.

Chronologically, the San Francisco price series tended to remain on the same level for long periods as compared with Petaluma prices. Here variation can be accounted in some detail by competitive bidding for small lots from one based upon the bargains concluded by a small number of large operators. Nevertheless, it raises the question of sensitivity in the reporting of the San Francisco prices. Are the terms of real transactions accurately reflected or should they be regarded as conscious estimates made by people who preferred to state the previously published price without change? They may not have intended to adhere to it themselves but did not wish to take the lead in setting a new level which would immediately become known to all their competitors and thus affect their bargaining position in current or immediately succeeding transactions.

If these prices constitute a fair statement of the market, then a feature which stands out immediately when any comparison is made is the seasonal change in the relative position of the two price levels. Over the whole year, the San Francisco price stands 1 cent higher than that prevailing at Petaluma and this might be regarded as a fairly accurate reflection of the transport and resale margin between producing and consuming districts some fifty miles apart. During the six months, September 1941 to March 1942, Petaluma prices frequently ran much higher, however, than those prevailing in San Francisco and averaged 0.12 cents per pound more over the whole period. From then until September they were consistently below San Francisco levels, often by several cents per pound. The mean difference during these six months was 1.75 cents to the advantage of San Francisco. In part, this was a direct consequence of closer proximity to the influence of movements in the price of eggs during the year. Outline was centralized in highly commercial areas such as Petaluma, but the industry was delighted when egg prices fell. During the months when egg prices were at their peak, prices for hens in Petaluma were higher relatively than in San Francisco. Months when eggs declined in value displayed oppositely the relationship.

A distinct lag between the San Francisco and Petaluma series can be discerned in the onset of the movement of hatchery hen prices, especially during the first half of the year. Egg prices rose and fell a few days later than prices at Petaluma. Generally, they moved in the same direction but rarely so far. Part of this tendency may be attributed to the method of formulating the San Francisco published prices; not any reflects an economic situation there. In the short run, supply was much more variable than demand. Egg producers catering to a fairly constant and predictable consumption pattern were slower in changing their prices than dealers dealing on supplies which varied markedly from sale to sale and which, once thrown onto the market, could not easily be withdrawn.

The general tendency for Petaluma prices to vary much more than those reported in the Market News for the San Francisco wholesale market must be attributed to the peculiar character of the reaction market. Numerous producers decide independently to market specific quantities and types without any

FIGURE 8
LIVE POULTRY PRICES : PETALUMA AND SAN FRANCISCO
LEGHORN HENS

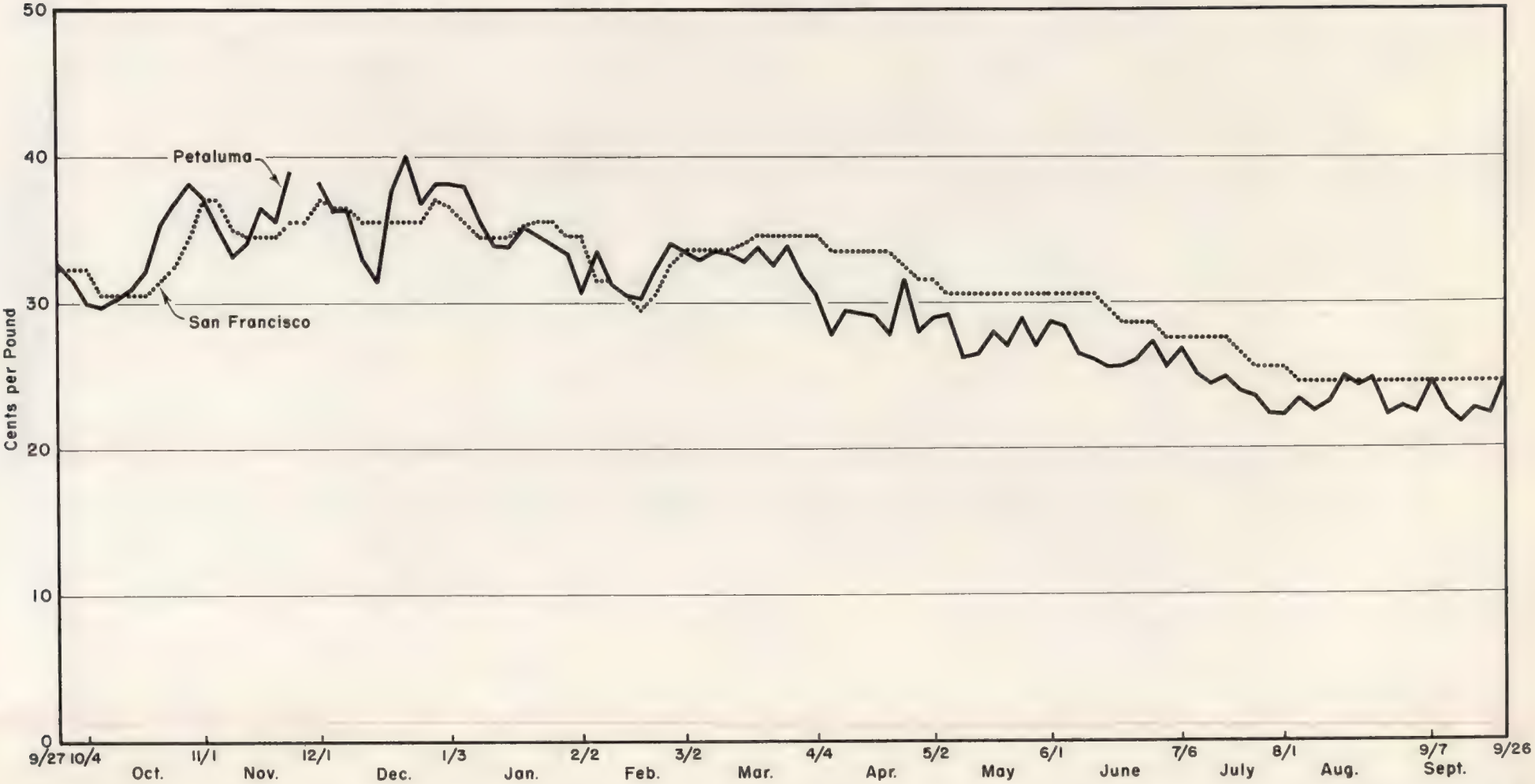
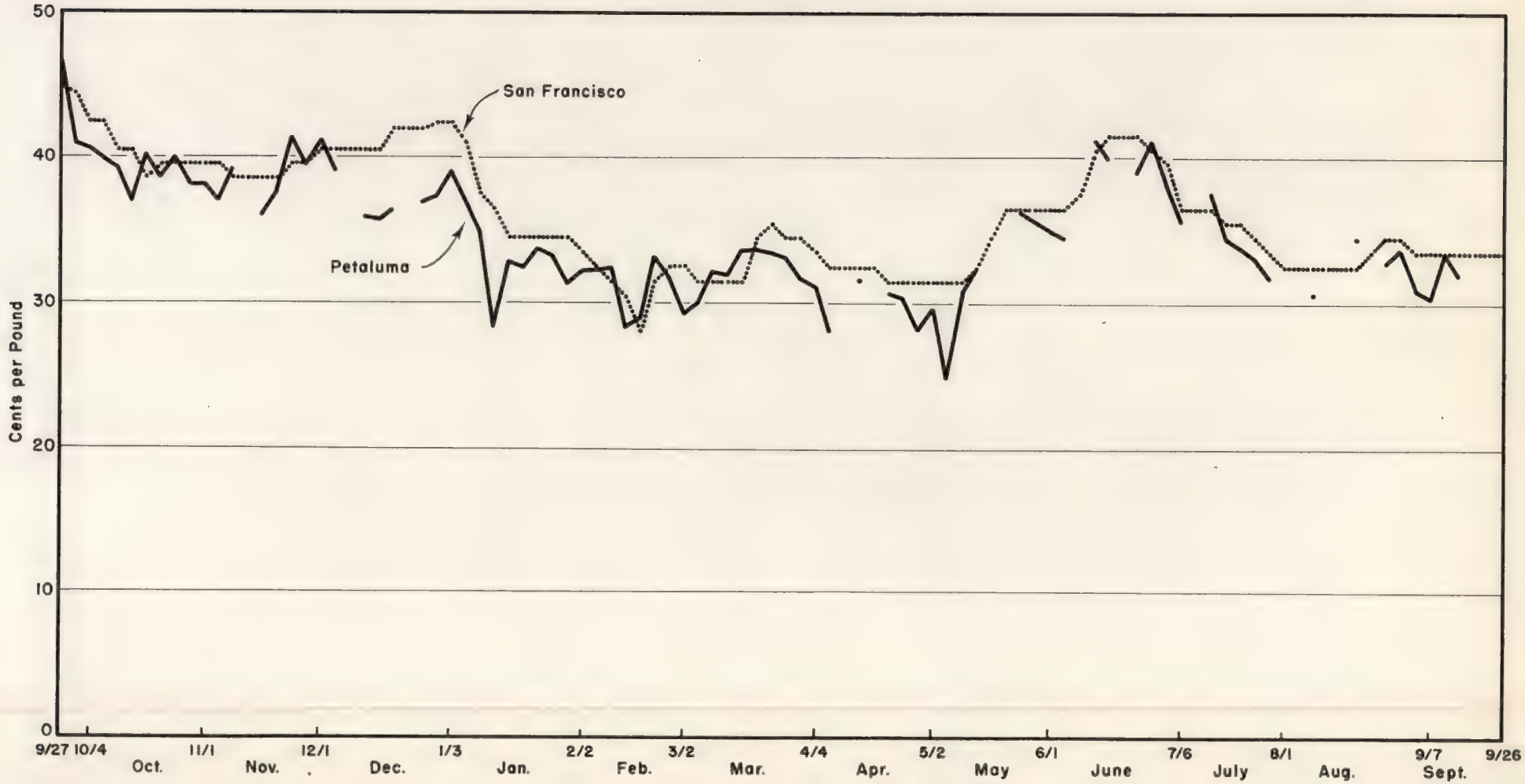


FIGURE 9
LIVE POULTRY PRICES : PETALUMA AND SAN FRANCISCO
LEGHORN BROILERS

FIGURE 10
LIVE POULTRY PRICES : PETALUMA AND SAN FRANCISCO
COLORED FRYERS



knowledge of their fellow suppliers' decisions in this respect. Few are prepared to take the trouble to arrange for the re-purchase and return to the ranch of stock once it has been transported to the auction, even if the bids were unsatisfactory.

Leghorn Broilers.--The Market News Service issued only one price for Leghorn broilers covering all birds under $2\frac{1}{4}$ pounds in weight. This tended to maintain a steady 2 cents per pound premium over the Petaluma price. This figure is larger than the accepted differential for transportation from Petaluma to San Francisco. If there are no special attendant circumstances to advance in explanation, then dealers were taking a larger margin for the function of transfer from production to consumption center than was warranted under normal competitive conditions. Admittedly, the processing of broilers for resale involves higher labor costs per pound weight than are incurred in handling larger birds. Size of bird, however, does not affect the cost of transport. On the other hand, shrinkage between farm and killing point was a weightier consideration with broilers than with older birds. Most of the processors kept young broilers in feeding pens for three or four days before killing them in an attempt to recover their lost weight or, if possible, make some gain.

Apparently, seasonal factors played a less important part here in determining the differential between producing and consuming center. Both price series declined from September through November, rose again in midwinter to drop back slightly in March before pursuing a steadily upward course for the remainder of the summer. Hatching and consumption characteristics assist in interpretation. The sharp falls in Petaluma prices during November and late December coincide with the popular interest in turkeys for Thanksgiving and Christmas. Broilers thrown onto the market at such times had an exceptionally depressing effect on price since the main demand for poultry meat was concentrated elsewhere. Other periods when the price at San Francisco was significantly higher than at Petaluma after allowance for transport costs include early October, late February, May and June. There were, on the other hand, periods through March, early May and early July when the differential disappeared. Influential in achieving this, however, was the intraweekly fluctuation in supply to the auction. Those instances when the Petaluma price exceeded that at San Francisco occurred on days when broiler supplies had been cut to one-third of those at the preceding auction and were concentrated almost entirely in the "good" grade. Buyers with fixed commitments in this class were unable to make up their orders even from birds of lower quality.

Colored Fryers.--The Market News Service reports prices for two categories of colored fryers, those weighing between $2\frac{1}{4}$ and 3 pounds and those from 3-4 pounds. The lighter birds generally ran 1 cent lower in price than the heavier but for one-third of the days charted the same range applied to both. In consequence, the differential between the two weight categories only averaged 0.78 cents per pound. Both made higher prices in San Francisco than grade "good" at Petaluma, the heavier birds by 1.59 cents per pound, the lighter by 0.81 cents per pound. For the sake of simplicity only the prices for birds weighing 3-4 pounds have been charted against those of grade "good" at Petaluma. The two series follow much the same pattern apart from a period during December when Petaluma prices were 4-5 cents per pound lower. Incompleteness in the Petaluma series makes comparison in detail extremely difficult.

It is, however, noteworthy that both series followed a characteristic pattern which was quite distinct from those observed in the other classes. The

[illegible] of their fellow [illegible] [illegible] in this respect. Few are prepared to use the [illegible] to arrange for the re-[illegible] and [illegible] to the reach of stock once it has been transported to the auction, even if the [illegible] was [illegible].

Lightweight Broilers.--The Market News Service issued only one price for "[illegible]" broilers covering all birds under 2½ pounds in weight. This tended to maintain a steady 2 cents per pound premium over the Petaluma price. This figure is larger than the accepted differential for transportation from Petaluma to San Francisco. If there are no special advantages inherent in [illegible] in [illegible], then [illegible] were taking a larger margin for the [illegible] of [illegible] from production to consumption center than any [illegible] under normal [illegible]. Admittedly, the processing of broilers for resale involves higher labor costs per pound weight than are incurred in [illegible] larger birds. Size of bird, however, does not affect the cost of transport. On the other hand, shrinkage between farm and killing point was a more [illegible] [illegible] with broilers than with other birds. Most of the [illegible] kept [illegible] broilers in feeding pens for three or four days before killing them in an attempt to recover their lost weight or, if possible, make some gain.

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] in determining the [illegible] [illegible] between producing and consuming [illegible]. Prices [illegible] [illegible] [illegible] from September through [illegible], [illegible] in [illegible] [illegible] from [illegible] [illegible], before becoming a steadily [illegible] [illegible] for the remainder of the [illegible]. [illegible] and [illegible] characteristics [illegible] [illegible] interpretation. The sharp falls in Petaluma prices during November and late December coincide with the regular [illegible] in turkeys for Thanksgiving and Christmas. [illegible] [illegible] onto the market at such times has an [illegible] [illegible] effect on [illegible] the [illegible] and [illegible] that was [illegible] [illegible]. [illegible] [illegible] [illegible] the price at San Francisco was [illegible] higher than at Petaluma after allowance for transport costs [illegible] [illegible] October, late February, May, and June. There were, on the other hand, periods through March, early [illegible], and early May when the differential [illegible] [illegible] [illegible] in [illegible] this, however, was the increasingly [illegible] [illegible] to the auction. [illegible] instances when the Petaluma price exceeded that at San Francisco occurred on days when broiler supplies had been cut by the [illegible] of them at the [illegible] auction and more consignments [illegible] [illegible] to the "small" [illegible]. Buyers with fixed commitments in this class were unable to make up their orders even from birds of lower quality.

[illegible] [illegible].--The Market News Service records prices for the categories of [illegible] fryers, those weighing between 2½ and 3 pounds and those [illegible] [illegible] pounds. The lighter [illegible] [illegible] [illegible] 1 cent lower in price than the [illegible] but for one-third of the days covered the same range applied to [illegible]. [illegible] [illegible], the differential between the two weight [illegible] [illegible] only [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] at Petaluma, the heavier birds by [illegible] cents per pound, the lighter [illegible] 0.[illegible] cents [illegible] pound. For [illegible] [illegible] [illegible] [illegible] only the [illegible] [illegible] birds weighing 3-4 pounds were [illegible] [illegible] [illegible] [illegible] of [illegible] "good" [illegible] [illegible]. The two series follow much the same pattern apart from a period during December when Petaluma prices were 4-5 cents per pound lower. Irregularities in the [illegible] series make comparison in detail extremely difficult.

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
pattern which was quite distinct from those observed in the other classes. The

trough of low prices in the spring when hatchings are most numerous terminated in May. A steady rise through June produced a second peak in the year almost as high as that in the fall.

Petaluma prices fluctuated more than those ruling in San Francisco but rarely exceeded them and then only by a fraction of a cent and for a very brief period. San Francisco fryer prices ran on a significantly higher level (4-5 cents per pound) all through December. The impact of the holiday demand for turkey which had such a disturbing influence at Petaluma made much less impression in San Francisco. Apparently, those handling the supply side made adjustments to discount this temporary diversion of demand. Petaluma suppliers lacked the experience of professional poultry dealers.

On February 16, prices of all classes of birds at San Francisco fell below comparable levels at Petaluma. Since the auction was not achieving higher prices at this sale than at those preceding and following, this must be an instance where a change in the market at San Francisco was carried back to its supply area.

Colored Hens.--Only one price at San Francisco is published for colored hens and this refers to all weights. Half the colored fowl offered at Petaluma were graded "good," but trading in this category did not take place on 30 of the 100 auction sales studied and this limits the validity of averages drawn from the available data.

Such sales as were made at Petaluma averaged 0.20 cents per pound more than the prevailing prices at San Francisco. From September to March this differential was as high as 0.51 cents per pound. For the remainder of the year, there was little difference in the average, but individual sale days at Petaluma showed very wide deviations from the San Francisco price which declined steadily. In contrast, Petaluma prices ranged from 41 to 30 cents per pound during this period. Irregularity in supply may well be the dominant factor in this discrepancy.

The even pattern of the San Francisco price over the whole year is remarkable. The extreme ranges reported never fell below 31 cents per pound or rose above 46 cents. Movements between these figures were smooth and gradual.

TABLE 10

Petaluma and San Francisco Live Poultry Price Comparisons. Excess of San Francisco "No. 1" Quality Over Petaluma[X] Grade "Good."

Period	Leghorn hens		Leghorn broilers	Colored fryers		Colored hens
	Under 4 pounds	4 pounds and over	Under $2\frac{1}{4}$ pounds	$2\frac{1}{4}$-3 pounds	3-4 pounds	All weights
	cents per pound					
6 months September/March	-1.06	-0.12	2.15	0.87	1.76	-0.51
6 months April/September	1.12	2.39	1.73	0.73	1.35	0.05
12 months September 1948/ September 1949.	0.001	1.07	1.96	0.81	1.59	-0.20

X Irrespective of weight

[illegible]

[illegible]

[illegible]

Sales from the Ranch.--Since most producers have to decide whether to sell their birds through the auction or accept the offer of a dealer buying from the ranch, they will be interested in some analysis of the relationship between auction prices and those arrived at by private bargaining. These deals comprise the bulk of the first sales of poultry in California. Sales conducted on a cash basis with the assistance of the buyer in loading and grading relieve the producer of much work. At the same time the buyer may traverse additional miles in search of his clients, but he gains in securing substantial loads with their attendant economies in transportation and overhead costs.

Most of these sales are based on some agreed differential from the published San Francisco price for the most appropriate class and grade. This facilitates comparison since the San Francisco prices have already been set alongside the auction data (see table 10). In such circumstances interest centers on the differentials employed and the supplementary conditions associated with the bargain. Precise estimates under specified marketing conditions are rarely obtained. Nevertheless, producers situated in different geographical zones from San Francisco generally concur on the margin customary in their area. In a zone extending as far as Petaluma, the price runs 2 cents below San Francisco. In Ukiah and Sacramento it is 3 cents below. The latter situation is surprising since the latter city with its population exceeding 100,000 constitutes a considerable market in itself. Producers go so far as to attribute to Sacramento dealers the fraudulent practice of deducting 3 cents from San Francisco prices when buying and adding 3 cents to these published prices when selling. The dealers imply thereby that birds passing through their hands travel to San Francisco and back again even if some are disposed of into local consumption.

The proportion of the producers' flock taken at this price must also be taken into account. Many dealers take the bulk of a flock at an agreed differential from the lower of the two published San Francisco prices for the class since they do not grade in detail and wish to allow for variations in quality. The buyer does, however, segregate birds with obvious defects and classes them as rejects to be accepted only at a very low price.

At the auction the same lot of birds might be distributed between the three grades "good," "fair," and "as is." Very few would be classed as complete rejects. On the other hand, auction sales incur a deduction for expenses of $1\frac{1}{2}$ cents per pound and transportation charges amounting to $\frac{1}{2}$ or 1 cent per pound. This means that, other things being equal, the producer could accept a flat price at the ranch 2-$2\frac{1}{2}$ cents per pound below that prevailing at the auction and obtain the same net return.

It would seem that actual producer receipts via these alternative methods of marketing did not differ significantly.1/ This was likely to continue so long as the auction remained in operation. Noticeable divergence would lead to produce being switched from one to the other until an equilibrium was regained. Just what effect removal of the auction will have on producer bargaining power is the crucial issue.

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1/ The senior author was an observer at a transaction which took place on a poultry farm at Rio Linda, Sacramento County, California on January 30, 1950. The prices quoted for Leghorn hens are listed together with prices paid at the Petaluma Live Poultry Auction and Market News Service quotations at San Francisco for the same day.

Defer from the Trade.--Since most producers have to decide whether to sell their butter through the auction or accept the offer of a dealer-buyer from the trade, they will be interested in some analysis of the relationship between auction prices and those arrived at by private bargaining. Tuesday's auction is the bulk of the first sales of poultry in California. Sales conducted on a cash basis with the assistance of the buyer in loading and grading relieve the producer of much work. At the same time the buyer may encounter additional risk in respect of his clientele, but he gains in securing accumulated funds with their attendant economies in transportation and overhead costs.

Most of these dealer sales are based on some quoted differential from the published San Francisco price for the most representative class and grade. Thus for butter, comparisons since the San Francisco prices have actually been set alongside the auction sales (see table 10). In such circumstances interest centers on the differentials imposed and the supply-demand conditions associated with the bargain. Prices as indicated were spectacular during certain conditions are remarkably obtained. Nevertheless, producers situated in different geographical zones from San Francisco generally concentrate on the supply conditions in their area. In a zone extending as far as Oakland, the price runs 2 cents below San Francisco. In Ukiah and Sacramento it is 3 cents below. The latter situation is surprising since the latter city with the population exceeding 100,000 constitutes a considerable market in itself. Producers go so far as to distribute to consumers who transport produce as far as 3 cents from San Francisco prices when buying and selling 2 cents to those publishers prices when selling. The dealers imply thereby that fresh produce through their hands brought to San Francisco and back again even if none are disposed of into local consumption.

The proportion of the producers' flock taken at this price must also be taken into account. Many dealers take the bulk of a flock at an agreed differential from the lower of the published San Francisco prices for the class since they do not grade in detail and wish to allow for variations in quality. [illegible] rejects to be accepted only at a very low price.

At the auction the same lot of birds might be distributed between the three prices "good," "fair," and "as is." Very few would be classed as a single [illegible] for one quarter [illegible] for 1 cent per pound and transportation charges amounting to ½ or 1 cent per pound. This means that, other things being equal, the producer could receive a first price at the ranch 2-½ cents per pound below that prevailing at the auction and obtain the same net return.

It would seem that actual producer receipts via these alternative methods of marketing did not differ significantly.1/ This was likely to continue so long as the auction remained in operation. Noticeable divergences would lead to producers being switched from one to the other until an equilibrium was reached. Just what effect removal of the auction will have on producer bargaining power is the crucial issue.

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1/ The senior author was an observer at a transaction which took place on a [illegible] lane on Mid Island, [illegible] The price quoted for Leghorn hens are listed together with prices used at the Petaluma Live Poultry Auction and Market News Service quotations at San Francisco for the same day.

Ranch, Rio Linda			Auction, Petaluma			San Francisco Market News Service	
Grade	Per cent	Cents per pound	Grade	per cent	Cents per pound	Grade	Cents per pound
Average flock (weight 5-1/3 pounds)		14.0	"Good"		17.75-20.5	Birds weighing over 4 pounds	17.0-18.0
Rejects		2.5	"Fair"		12.25-18.0		
			"As is"		9.00-11.25		
Proportion of flock			Estimated weighted average		15.72		
Average bird	93.6						
Rejects	6.4						
Offer for limited quantity for local sale		15.0	Weights:				
			"good"	30			
			"fair"	58			
			"as is"	12			

Auction Buyers

When the primary purpose of an institution is to bring together supply and demand and set up a favorable environment for the establishment of an equilibrium through the operation of the price system, the way in which local demand finds effective expression is an important consideration in its success. The object of this section is to examine how far the buyers congregating at the Petaluma auction comprised an adequate outlet through which the supply of poultry concentrated there might move into appropriate marketing channels for the maximization of both producer and consumer satisfaction.

Desirable Features in Buyers Frequenting a Market.--These would be regularity in attendance, interest in a wide range of produce, and capacity to take up varying quantities and redistribute them over time and place to the greatest advantage. Their bids should also represent fairly the demand price at the time of sale for different classes of poultry, and for the various quality grades within these classes. Finally, they should be able to pay promptly for all purchases. Important disabilities which sponsors of a market would try to avoid would include the negations of the foregoing, undue concentration on lines of produce not proportional to those actually offered for sale, unreliability in attendance and settlement of accounts, and business instability. All auctioneers face the problem of combatting monopsonistic pressure by the buyer, that is, domination over the market by one firm, or by a group of firms colluding to act as one, such as would enable the buyer group as a whole to control prices to their advantage and exact special favors in return for continued attendance.

At least some of these factors lay within the control of Poultry Producers of Central California. It had the power to select the location most likely to appeal to and assist the poultry-buying community. It could arrange sales days and starting times so as to maximize their convenience. It could adjust procedure to suit their tastes. It could carry out all this, subject to a fair consideration of producers' needs and some constraints as to operating and handling costs. Finally, it could publicize the auction to all prospective buyers and exert as much influence as possible to secure the regular attendance of buyers representing demand of such strength as to absorb whatever quantities and types of poultry as were likely to be on offer.

The realized endeavors of Poultry Producers to further these objectives have already been discussed. It remains to measure, insofar as available data permit, the changes and developments which occurred on the demand side of the market and the part they played in forming its character, and thus ultimately to estimate the degree of success in achieving its purpose.

Buyer Attendance.--Some dozen buyers attended the auction as a matter of routine practice. These were not always the same people. Since the statistical measure of attendance was an entry on the record of purchases, it is very probable that more potential buyers were present on each sale day than those actually listed. They were not, however, making a valuable contribution. The speculator who looked on critically and only made a bid when prices were especially favorable, that is, when they were so low as to show a profit on the risk of buying lots for resale in another spatial or temporal plane, served to keep the market on a comparable level with prices prevailing in other areas. But since the function of arbitrage could only be paid for in reduced returns to the

When the primary purpose of an institution is to bring together supply and demand and act as a favorable environment for the establishment of an equilibrium through the operation of the public auction, the way in which local demand is the effective connection is an important consideration in its success. The object of this section is to examine how far the buyers corresponding at the Victoria auction complied an adequate outlet through which the supply of the producers could be distributed to the consumer satisfaction.

Buyers Frequenting a Market.--There would be remarkably in attendance, interest in a wide range of produce, and competition rise by varying quantities and continuously been over time and place to the greatest advantage. Under this should also recommend fairly the demand price at the time of sale for different classes of poultry, and for the various quality grades within these classes. Finally, they should be able to pay promptly for all purchases. Important difficulties which supporters of a market would, by so small world include the negations of the foregoing, in the concentration on lines of produce not proportional to those actually offered for sale, unreliability in attendance and satisfactory of methods, and business instability. All auctioneers face the problem of combatting monopsonistic measures by buyers, that is, domination over the market by one firm, or by a group of firms soliciting to act as one, such as would enable the buyer group as a whole to control prices to their advantage and exact special favors in return for con-

At least some of these factors lay within the control of poultry producers of Central California. It had the power to select the location much locally to appeal to and assist the poultry-buying community. It could arrange sales days and starting times so as to maximize their convenience. It could adjust procedures to suit their tastes. It could carry out all this, subject to a fair consideration of producers' needs and some consideration to operating and handling costs. Finally, it could publicize the auction to all prospective buyers and exert as much influence as possible to secure the regular attendance of buyers representing demand of such strength as to absorb all lower qualities and types of poultry as were likely to be on offer.

The realized endeavors of Poultry Producers to further these objectives have already been discussed. It remains to measure, insofar as available data permit, the changes and developments which occurred on the demand side of the market, and the part they played in forming the character, and thus determining to estimate the degree of success in achieving its purpose.

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The formation of associations could only be paid for in higher returns to the

supplier, it would not be an inducement responsible for a large proportion of the transactions there, without ultimately diverting supplies into the market where the speculator would have resold what he acquired at Petaluma.

During the course of the year, 18 different firms, including the Association's own Poultry Department, each purchased at the auction 10,000 pounds or more of live poultry. Within the four major classes of birds, the total quantity taken up by these 18 buyers amounted to 95.3 per cent of the gross volume sold. The small or less regular buyers who took up the remaining 4.7 per cent will not be discussed at length since their share in price determination was not influential. The range in the number of different purchasers at a single sale ran from a minimum of seven up to eighteen. This latter number relates to the day when the record volume of 55,000 pounds of live poultry was handled. Generally, the number of buyers rose and fell with the quantity of poultry on offer though not necessarily in exact proportion. Primarily, this rise and fall tended to coincide with the intraweekly fluctuation in supplies.

Locational Factors.--The map (p. 3) will explain the location of Petaluma relative to the main centers of production and of consumption, and indicates the arterial highways which link them together. Strategically, the site is exceptionally well chosen. Highway 101 leads directly from the north through Sonoma County across the Golden Gate Bridge to San Francisco, home for 800,000 potential consumers of chicken meat, and distribution center for many more. The main alternate route from the north over the Carquinez Bridge near Vallejo also branches from Highway 101 at Petaluma. It skirts important industrial and shipping communities and leads through the Contra Costa County cities to Oakland, the East Bay residential districts, and San Francisco. Petaluma is within two hours' truck journey of all these Bay cities and has no significant rival production center with any competitive advantage. It has the advantage of proximity to populations with a high consumption of poultry meat and the well-developed wholesale and retail agencies associated with it. Because it has been a center of the industry for many years, a considerable number of dealers have established themselves in Petaluma itself. Some bought regularly on the auction and, thus, lent it support albeit for their own advantage. Most considered their own business threatened by its operation and their profits likely to vary inversely with its popularity. They regarded it, in effect, as a direct competitor.

Character of Auction Buyers.--The regular buyers can be classified under four headings with some overlapping. For convenience they have been entitled large wholesalers, San Francisco retailers, Bay area retailers and local hucksters. Attributes in which these firms differed include size and type of business, geographical location and range of connection. The headings do not purport to be mutually exclusive. They are based on some common characteristics without regard for the possibility of discordance in other respects.

Large Wholesalers.--The large wholesalers comprised the Association's own poultry department and one of the largest San Francisco poultry processors and distributors. The former can properly be included in this category since it bought 18.4 per cent of the poultry sold on the auction, operated a full-scale killing and dressing plant with limited packing facilities on premises adjacent to the auction, and sold the whole of its product in wholesale and retail channels rather than to consumers. Poultry Producers was prepared to buy all kinds of poultry, subject to the observance of regular quality standards and some homogeneity within them, so that once wholesale outlets had been opened up

[illegible]

[illegible]

[illegible]

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they could be maintained on a regular basis. The breadth and scale of its operations in the egg business gave Poultry Producers special prestige and reputation in the provision trades. It was in a good position to make favorable contracts with mass buyers, the chain stores for example, which also took its eggs. On the other hand, the size and impersonal character of its organization resulted in higher labor and overhead costs in processing poultry and only promised positive returns when the flow of birds through the plant was up to capacity and relatively homogeneous in character. This could not easily be attained without the aid of exclusive contracts. Producers remained free to sell wherever they wished, yet Association purchasing was limited to member suppliers.

The other large wholesaling firm had long experience in various branches of the poultry business from quantity purchases of frozen birds in the Middle West to small-scale retailing in favorably located San Francisco markets. Its sales outlets ranged from large government orders to ship's stores, San Francisco hotels and restaurants, other dealers and individual customers at retail markets. Ample cold storage and handling facilities were available and this firm was well equipped to take up whatever produce came on offer at Petaluma and dispose of it over a range of time and place not possible for many other buyers. It was for such reasons that special efforts were made to have it represented at the auction. During the early part of the auction's life, purchases on this firm's behalf played an influential part in insuring its successful establishment as a going concern. The wholesaler probably saw advantages in the opportunity to acquire large quantities of poultry in a short time since the task of assembly from various ranches into one conveniently located center had already been performed.

San Francisco Retailers.--The group designated San Francisco retailers was comprised of seven firms located in the city and selling mainly by retail. The largest of these concerns sold about half its produce over the counter to a clientele composed predominantly of lower, middle-income groups with a strong European character, and half to small retail stands in mixed food markets, concessions, etc., which had no processing facilities of their own. This concern killed and dressed some 8,000-9,000 birds per week and would be rated substantial medium size by San Francisco standards. Stocks of poultry could be kept alive in batteries, or dressed held in cold storage. Its trade was relatively constant in character throughout the year except during December when turkeys became more important than chickens.

The next San Francisco retailer in importance to the Petaluma auction also maintained an element of wholesale business. Ordinarily, it handled some 50,000 birds each month. Of these, 75 per cent went into direct retail sale to consumers in an important residential area. The wholesale side grew out of a tendency for some lots purchased to exceed immediate retail requirements for that particular type of produce and from economies associated with the fullest use of the firm's modern and well-equipped killing and processing plant. The retail side of the business had been expanded on a considerable scale to dispose of chicken in all forms over a large part of the city. Young birds comprised the bulk of the firm's year-around turnover. Older pullets and hens sold best during the winter for fricassee and broth which were not so popular in warmer weather.

Two businesses to the south of the city properly belong to this group. The first was dominantly retail with a special interest in good quality for a regular clientele. It handled some 1,500-2,000 birds per week including all

they could be [illegible] on a [illegible] basis. The [illegible] and [illegible] of its [illegible] [illegible] gave to [illegible] producers a small [illegible] and [illegible] the [illegible] [illegible]. It [illegible] a good [illegible] the [illegible] [illegible] with [illegible], the [illegible] [illegible] for [illegible] [illegible] also took its [illegible]. On the other hand, the [illegible] and [illegible] [illegible] of its organization [illegible] labor and overhead costs in [illegible] poultry and [illegible] [illegible] [illegible] when the [illegible] of birds through the plant [illegible] [illegible] and relatively [illegible] in character. This could not easily be [illegible] without the aid of exclusive contracts; producers were not [illegible] to sell wherever they wished, yet [illegible] was limited to member [illegible].

The other large [illegible], which had long experience in various branches of the poultry business [illegible] purchases of frozen birds in the [illegible] [illegible] [illegible]-scale retailing in favorably located San Francisco [illegible]. The [illegible] [illegible] from [illegible] to single [illegible] [illegible] [illegible] [illegible] and restaurants, [illegible] dealers and individual [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible] [illegible] to take on whatever [illegible] [illegible] other [illegible] and [illegible] of it over a range of [illegible] and [illegible] [illegible] than any other [illegible]. It was for such reasons [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. The wholesaler [illegible] [illegible] [illegible] in the opportunity to acquire [illegible] [illegible] of poultry in a short time [illegible] the task of [illegible] from [illegible] [illegible] into one conveniently located outlet had already been performed.

[illegible] *Retailer*.--The group doing [illegible] San Francisco retailers was comprised of seven [illegible] located in the city and selling [illegible] retail. The largest of these concerns sold about half its produce over the counter to [illegible] the [illegible] [illegible] of [illegible], [illegible] the [illegible] [illegible] a [illegible] [illegible] character, and half to small retail [illegible] in mixed food markets, [illegible], etc., which had no [illegible] facilities of their own. This concern [illegible] and [illegible] some [illegible] birds per week and [illegible] [illegible] [illegible] [illegible] in San Francisco [illegible]. [illegible] of poultry [illegible] [illegible] [illegible] in [illegible] [illegible] [illegible] in cold storage. Its trade was relatively constant in character throughout the year except for [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

The next San Francisco retailer in importance to the [illegible] auction also [illegible] an element of wholesale business. Ordinarily, it handled some [illegible] [illegible] [illegible] each month. Of these, 75 per cent went into direct retail sale [illegible] [illegible] an important residential area. The wholesale [illegible] [illegible] of a [illegible] [illegible] [illegible] [illegible] retail [illegible] for that particular type of produce and from [illegible] [illegible] associated with the fullest use of the firm's modern and well-equipped killing and [illegible] plant. The retail side of [illegible] business had been expanded on a considerable scale to dispose of [illegible] [illegible] [illegible] over a large part of the city. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible] sold best during the [illegible] [illegible] [illegible] which were not so popular in warmer weather.

The businesses to the [illegible] of the city [illegible] belong to this group. The first was dominantly retail with a special interest in good quality [illegible] [illegible] [illegible]. It handled some 1,[illegible]-2,[illegible] birds per week [illegible] [illegible]

classes with some emphasis on fryers and little interest in the cut-up trade. Here, also, hens and roasters were sold more freely in winter than summer when smaller birds were the more popular. Facilities for killing, processing and storage were conveniently adjacent to the store.

The second of these two concerns handled much the same volume of trade, namely, 6,000-8,000 birds per month in a district which was, however, subject to greater economic fluctuations. During the war, earnings in this industrial center had been very high and poultry meat ceased to be regarded as a luxury. The impact of relative stringency in purchasing power during the postwar years had been one of concentrating retail sales of chicken towards the end of the week and elevating considerations of price to greater significance than those of quality alone. Leghorn hens comprised the bulk of the business although colored birds were preferred. Only small quantities were wholesaled out to other retailers, but the business had its own killing plant capable of handling the moderate-sized lots appropriate to a concern of this size.

Three other firms made up this group of San Francisco retailers. Two of them did a small amount of wholesaling as seemed to be the tendency wherever a private killing plant was attached to the store. City health ordinances restrict the handling of live poultry to specific areas and prohibit it within stores selling other types of food. This means that the chain stores and new type super markets with poultry concessions cannot kill on their own premises and must buy from wholesalers able to carry on this operation legally. These two firms were situated in business districts. One turned over some 1,800 birds per week, the other 1,500. The first of the two dealt in a variety of lines but preferred the colored types. Quality ranges were fairly wide though 75 per cent of the trade was in younger birds. The second divided its business between wholesale and retail outlets, was expanding currently, and proposed opening up a new retail store to handle much of the produce that hitherto had been resold in bulk. It handled most types of birds and faced demand schedules said to remain fairly constant throughout the year. Both firms maintained their own killing facilities.

The last of the San Francisco retailers was quite different in character. Situated in a special community district with a taste for good quality heavy colored hens, this was a purely retail business disposing of some 400 chickens per week in conjunction with other meat. The poultry business had formerly been much larger. Apart from the usual seasonal interest in turkeys, it did not fluctuate to any great extent.

All the San Francisco poultry businesses considered were operated mainly by Italian-Americans with close family interconnections in several cases. Although various individuals in the different concerns were probably aware of their rivals' policy, there was little evidence of collusion at the selling end. Each one laid emphasis on the cut-throat character of the competition which prevailed in the trade. Nevertheless, the possibility of ad hoc, short-run agreements and understandings at the auction room itself for the purpose of promoting the buying interest as a whole against a separate section of the industry is not completely precluded.

Bay Area Retailers.--The other Bay area retailers differed from their San Francisco counterparts in location and size rather than in kind. Two retailed from smaller premises in the East Bay cities and bought medium quality produce for their relatively low income clienteles. The other three were scattered

[illegible] were amusing on [illegible] and likely entertained [illegible] the [illegible] [illegible] [illegible]

about the northern and eastern shores of the Bay in closer proximity to Petaluma than those firms discussed hitherto. Situated in smaller cities, they tried to handle varying proportions of the different classes and grades of produce so as to be able to satisfy the tastes of a mixed clientele. One retailed in Vallejo, one in Martinez, and the third represented a poultry business in San Rafael selling approximately three quarters of its business by retail and one quarter by wholesale. All made their own arrangements for killing and dressing.

Local Hucksters.--The elements included in the fourth group do not conform to one pattern so closely as the others. Classification under the loose heading "local hucksters", while provocative, does not seem inappropriate since it emphasizes a feature which they all had in common. They were uniformly based upon the Petaluma production center itself and thus had ample opportunity to build up intimate contacts with individual ranchers in the area. The prime objective of the huckster was to search out bargain lots of chickens and dispose of them advantageously to wholesale and retail outlets. In this respect he stands apart from the buyers previously discussed because they were mainly interested in the physical functions of processing and retailing. Even though all might buy from individual ranches, or employ representatives to do so on their account, the major part of their business could be conducted satisfactorily even if the auction were to act as the first intermediary and assembly point.

Professional hucksters, on the other hand, could not look upon the auction as anything but a direct competitor and an intruder into what had previously been entirely their own domain. If successful, it would replace them in performing the functions of concentration in terms of time and space and of resale for distribution in accordance with consumer demand as reflected through retailers' channels. This group included the two largest hucksters in Sonoma County, men with established connections in both producing and consuming areas. A third was a professional dealer in live poultry who was also a Petaluma member of the Poultry Producers. Rather different in character was another firm which was quite large for Petaluma. It sold widely through Sonoma and Marin Counties and in San Francisco and was regarded as a real and direct competitor. The group is completed with the inclusion of a local peddler and a dealer in laying hens who derived an unconventional profit from purchasing large lots of culls. These were segregated into hens which had best be sold for immediate consumption and others which the dealer believed could be stimulated into further laying by means of a high protein feed and forcing lights. When the latter ceased to be economic as layers they also were sold for meat.

Buyers of this latter group could not be expected to contribute much to the financial success of the auction. Two interests governed their attendance at the sale ring. The auction offered a convenient reserve from which loads could be made up and commitments met, which direct purchases from producers had not covered satisfactorily. Secondly, they wished to study the movement of prices and current trends in demand and supply and to profit by any temporary maladjustments which would enable them to make purchases below the going demand price for the region as a whole. Hucksters frequently bought up surplus lots and resold them in higher priced markets. Clearly, they were unlikely to bid so closely to San Francisco prices as to leave themselves with no margin in excess of transport and shrinkage costs. Yet, producers would not expect the long-run differential from San Francisco prices to exceed this amount and would react strongly against any such discrepancy.

Both the northern and eastern shores of the Bay in close proximity to Petaluma, near those times described hitherto. Situated in smaller cities, they tended to handle varying proportions of the different classes and production so as to be able to satisfy the tastes of a mixed clientele. The rancho of Lt. Vallejo, one in Novitzer, and the board resembles a poultry business in San Rafael. Filling approximately three quarters of its business by market and one quarter by wholesale. All made their own arrangements for killing and dressing.

Local Industry.--The elements included in the fourth group do not conform to the pattern so closely as the others. Classification under the loose heading "local industry", while precisely, does not seem inappropriate since it emphasizes a feature in which they all had in common. They were uniformly based upon the Petaluma production center itself and thus had ample opportunity to build up intimate contacts with individual members in the area. The entire objective of the producer was to secure out organized lots of chickens and dispose of them advantageously to wholesale and retail outlets. In this respect the activity sent from the buyers previously discussed because they were mainly interested in the physical function of processing and reselling. Even though all might buy from individual ranches, or employ representatives to do so on their account, the major part of their business could be conducted satisfactorily even if the position were to act as the first intermediary and assembly point.

Professional producers, on the other hand, could not look upon the position as anything but a direct competitor and an intruder into what had previously been entirely their own domain. If successful, it would reduce them in proportion to the functions of concentration in terms of time and space and of vessels for distribution in accordance with consumer demand as reflected through retailers' channels. This group included the two largest producers in Sonoma County, men with established connections in both producing and consuming areas. A third was a professional dealer in live poultry who was also a Petaluma member of the Poultry Producers. Rather different in character was another firm which was quite large for Petaluma. It sell directly through Stores and Hotels Department and in San Francisco and was recognized as a real and direct competition. The group is completed with the inclusion of a local peddler-and-dealer in living birds who derived an inconsiderable profit from purchasing large lots of culls. These were segregated into lots which had been sold from inadequate consumption and others which the dealer believed could be eliminated into his living by means of a high protein food and forcing flights. Some the latter proved to be economic as layers but they also were sold for meat.

Buyers of this latter group could not be expected to contribute much to the financial success of the auction. Two intervals governed their attendance at the sale rings. The auction offered a convenient reserve from which lots could be made up and consignment, which had already pressures from producers had not covered satisfactorily. Secondly, they wished to study the movement of prices and current trends in demand and supply and to profit by any temporary maladjustments which would enable them to make purchases below the going general price for the region as a whole. Dealers frequently bought up surplus lots and resold them in higher price markets. Finally, they were unlikely to bid for closely to San Francisco prices as to leave themselves with no margin to encompass of transport and storage costs. Yet, producers would not expect the long-run differential from San Francisco prices to exceed this amount and would resent strongly operations by such dealer-buyers.

The chief counterweights to this depressing influence were the local retailers. Proprietors of their own business, in the main, they were prepared to pay prices approaching the wholesaler to retailer level. Since the auction offered a wide range of choice in conveniently small lots, it frequently enabled them to stock up their stores without recourse to another intermediary. They bore the inconvenience of appearing in person at the auction, the risk of not finding the birds they wanted, and the necessity of arranging transportation to the killing point. Nevertheless, these drawbacks were not such as to prevent their bidding above the normal wholesale price in order to obtain lots which were especially suited to their needs.

Nature and Volume of Purchases.--Table 11 sets out the quantities of poultry bought at the auction in the four major classes, light and heavy hens, broilers and fryers. These figures were summed for purposes of comparison, but the column entitled total does not purport to include all the purchases made at the auction by these buyers but only those within the four major classes. However, correction to include roasters, cock birds and miscellaneous produce would not affect markedly the significance of the figures as now presented.

Thus, the San Francisco retailers bought almost half of the produce offered in these categories, the large wholesalers rather less than one-third and the Bay area retailers and local hucksters approximately one-tenth each.

TABLE 11

Purchases of Different Poultry Classes
by Types of Buyers--Petaluma
Auction, 1948-49

Type of buyer	Purchases by weight				
	Leghorn hens	Leghorn broilers	Colored fryers	Colored hens	Total
	thousand pounds				
Large wholesalers	200	158	93	19	470
San Francisco retailers	368	199	152	58	777
Bay area retailers	53	43	71	23	190
Local hucksters	116	40	25	9	190
	per cent				
Large wholesalers	26.1	34.2	25.5	17.1	28.9
San Francisco retailers	48.1	43.7	41.6	52.2	47.7
Bay area retailers	6.9	9.3	19.4	20.7	11.7
Local hucksters	15.1	8.6	6.8	8.1	11.7

No one firm was in a monopsonistic position with respect to prices since the largest buyer took only 20.2 per cent of the total. But a large unit buying an average of one-fifth of the produce in a market frequented otherwise by numerous small units could carry considerable weight as a price leader whose

[illegible] counties due to this depressing influence were the local [illegible]. Proprietors or their own families, in most [illegible], have been supported [illegible] approaching the wholesaler's [illegible] level. Since one proprietor [illegible] were frame, of course in comparatively small towns it necessarily consisted [illegible] their shelves without regard to [illegible] interests. They [illegible] of attending to [illegible] at the [illegible], the rank of [illegible] the brands they wanted, and the necessity of [illegible] to [illegible] [illegible] Independent, these dealers were not such as to [illegible] [illegible] above the normal [illegible] [illegible] to [illegible] [illegible] specially suited to their needs.

[illegible]--Table 11 sets out the quantities of [illegible] [illegible] in the four major classes, right, one being hard, [illegible] and firmers. These figures, arranged for purposes of comparison, in the column entitled total does not purport to include all the [illegible] [illegible] at the [illegible] by those buyers not [illegible] this [illegible] [illegible]. However, [illegible] or [illegible], such [illegible] and misjudgments [illegible] would not [illegible] the significance of the figures as now presented.

Thus, the San Francisco retailers bought almost half of the produce offered in these [illegible], the large [illegible] rather than the [illegible] and the [illegible] area retailers and local [illegible] [illegible] one-tenth each.

Table 11

Importance of Different Poultry Classes
in Terms of Purchases [illegible]

	Purchases by Wholesalers			
	[illegible]	[illegible]	[illegible]	Total
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

The firm was in a monopsonistic position with respect to prices since the largest buyer took only [illegible] per cent of the total. With a large [illegible] [illegible]

bids other buyers might respect for fear of retaliation when they wished to make their own purchases. How much of this was done in practice cannot be stated. Certainly, this particular buyer could be observed in the midst of a group of dealers during sales and the auctioneer looked to him to take a lead when the bidding was slow. The auction staff would also be chary of doing anything which might offend the buyer personally and lead to his deserting the auction in consequence. Fortunately, perhaps, the influence wielded by this buyer was almost directly counterbalanced by that of the Association itself which purchased approximately the same quantity.

The next largest purchasers at the auction were a considerable distance behind. No others bought as much as ten per cent, but within this group the decrease in amount purchased was comparatively smooth and gradual. Four firms each bought between five and ten per cent of the auction sales. Nine bought between one and five per cent. The least influential units included in the analysis, buying some 11,000 pounds of poultry each, together handled two per cent of the auction throughout.

Monopsonistic pressure might not be feasible over the whole range of produce sold through the auction, but could conceivably be exerted over specific parts of it. An inverse price discrimination bolstered by quality and age differences segregated the markets for the various types of produce. If such a tendency existed, it would be evident in table 12. There is little indication of undue concentration of purchases of a particular class of produce in the hands of any one group, let alone an individual firm. The large wholesalers bought relatively more Leghorn broilers than the other groups. Both the retail groups laid emphasis on colored hens which were neglected by the wholesalers as too high-priced. Local hucksters bought more Leghorn hens relatively to the other types. This may not, however, be typical, owing to the unusual interest shown in culled hens by one particular firm.

From the buyers' point of view, table 12 furnishes a clearer demonstration of the special interests of the different groups. Taken together, the large wholesalers' purchases were comprised of two-fifths Leghorn hens, one third Leghorn broilers, one-fifth colored fryers and only four per cent colored hens. It is apparent that the latter category sold at prices too high for resale within the trade. For the Bay area retailers, on the other hand, colored hens constituted twelve per cent of their total purchases as against seven per cent for the San Francisco retailers. Colored fryers were much more important to this group than to the others since they amounted to 37.4 per cent of the group's auction business but never as much as 30 per cent of that of any other group.

TABLE 12

Distribution of Purchases by Types of Buyers

Type of buyer	Percentage of total auction purchases				
	Leghorn hens	Leghorn broilers	Colored fryers	Colored hens	Total
	per cent				
Large wholesalers	42.6	33.6	19.8	4.0	100
San Francisco retailers	47.4	25.6	19.6	7.4	100
Bay area retailers	27.9	22.6	37.4	12.1	100
Local hucksters	61.1	21.1	13.1	4.7	100

[illegible] [illegible] [illegible] [

It seems quite clear that those who were buying for resale to the final consumer were more interested in the colored birds, generally the most sought after and highly priced on the market. This would be consistent with the wholesalers' complaint that prices at the auction ran on too high a level for this type of produce. They and the San Francisco retailers bought large quantities of Leghorn hens. The local hucksters also concentrated upon these. They were sufficiently numerous for a proportion, at least, to be left to the dealers whose business it was to effect an arbitrage with other markets. Petaluma hucksters generally trucked them directly into San Francisco.

Table 13 set out the same data in terms of two additional classifications. "Colored" reflects weight per bird and flesh-to-bone proportions. "Age of bird" distinguishes fryers and broilers from the culled hens. The larger groups of wholesalers and retailers evinced little differential interest in the white and colored birds as groups. But it is notable that the Bay area retailers bought 19.7 per cent of the colored birds and only 7.8 per cent of the white, whereas the local dealers bought 12.7 per cent of the white and only 7.1 per cent of the colored.

TABLE 13

Analysis of Purchases by Type of Buyer

Type of buyer	Percentage of total class auction purchases			
	White birds	Colored birds	Mature birds	Young birds
Large wholesalers	29.2	23.5	25.0	30.3
San Francisco retailers	46.2	44.1	48.6	41.5
Bay area retailers	7.8	19.7	8.7	13.8
Local hucksters	12.7	7.1	14.2	7.8

When sales of these four major classes are allocated to the buying groups under the headings "young birds" and "mature birds" as in table 13, marked propensities for one group or the other show up very clearly. The large wholesalers bought rather more young birds as compared with San Francisco retailers who were primarily interested in the old. Bay area retailers, however, bought almost twice as many young birds as old and local dealers the reverse proportions.

Quality Distinctions.--Differential interest in quality distinctions would be reflected to some extent in the above analyses. It stands out more clearly in tables 14 and 15, which classify the same purchase data under the Petaluma grade headings "good," "fair," "as is." Some interesting divergences in business policy become evident immediately. The large wholesalers especially Poultry Producers concentrated almost exclusively on the best quality produce; 72.8 per cent of their purchases were drawn from within this category and only 1.5 per cent from the "as is" grade. The basis of this position would seem to be that the function of intermediary involved their holding produce and eventually reselling the birds whole to retailers who were equally experienced in detecting and drawing attention to quality defects. The risk involved in purchasing birds which might be diseased was more serious for the wholesaler; in that it might prejudice a greater volume of produce and in that he sold to large buyers whose

To some people it was those who were buying for retails to the final consumer were interested in the colored birds, generally the most sought after and highly priced on the market. This would be consistent with the wholesalers' contention that prices as the question rose to the high level for this type of premium. They and the San Francisco retailers bought least [illegible]. C. [illegible] they were traditionally a nervous force promoting, at least, to be left to the dealers where business [illegible] to effect on arbitrage with other markets. Relations [illegible]

Table 12 set out the same data in terms of two additional classifications. "Colored" indicates weight per bird and Fleet-to-Coop purchases. "Age of bird" distinguishes Fryers and broilers from the called ones. The larger proportion of Dealers and retailers showed little differential buying in the white and colored birds as known. But it is notable that the Fry area necessitates low at 12.7 per cent of the colored birds and only 7.6 per cent of the white, whereas the local dealers bought 22.7 per cent of the white and only 7.1 per cent of [illegible]

Table 12

Analysis of Purchases by Type of Buyer

	[illegible]	[illegible]	[illegible]	[illegible]
Fresno wholesalers	20.0	22.5	25.0	30.3
San Francisco retailers	3.2	14.1	5.6	11.5
Bay area fleetlots	7.6	12.7	6.7	13.0
Local dealers	12.7	7.1	14.5	7.0

Even sales of these four major classes are allocated to the buying groups under the headings "young birds" and "mature birds" as in table 13, marked proportionation for one group or the other also on very clearly. The large wholesalers bought rather more young birds as compared with San Francisco retailers who were primarily interested in the old. Bay area retailers, however, bought almost twice as many young birds as old and local dealers the reverse proportion.

Q. Why the distinctions.--Differential interest in quality distinctions would be reflected to some extent in the above analyses. It appears out more clearly in tables 11 and 12, which classify the same purchases, but under the following grade headings "good," "fair," "as is." Some interesting divergences in analyses of buyer boosts evident immediately. The large wholesalers especially [illegible] per cent of their purchases were drawn from within this category and only 1.3 per cent from the "as is" grade. The basis of this condition would seem to be that the function of a commodity involved which holding produce and evaluating resulting the birds which to retailers who were equally experienced in distinctions and dealing attention to quality defects. The risk involved in purchase of birds which might be diseased was more serious for the wholesaler in that it might preclude a greater volume of produce and in that he sold to large buyers, more

detraction from the reputation of his wares would lead to serious repercussions. Since these were the two large buyers of good quality produce, the fact that one ceased to buy halfway through the year left the Poultry Producers of Central California as the sole mainstay of the wider market for the better quality birds.

TABLE 14

Purchases of Quality Grades by Types of Buyers

Type of buyer	Purchases by weight			
	Good	Fair	As is	Total
	thousand pounds			
Large wholesalers	342	121	7	470
San Francisco retailers	393	288	96	777
Bay area retailers	92	66	32	190
Local hucksters	90	80	20	190
	per cent			
Large wholesalers	72.8	25.7	1.5	100
San Francisco retailers	50.6	37.1	12.3	100
Bay area retailers	48.4	34.7	16.8	100
Local hucksters	47.4	42.1	10.5	100

The San Francisco retailers, on the other hand, increased their proportion of auction purchases as the quality declined. Their position was in reverse of that occupied by the wholesalers. Consumers attached much weight to quality, but if the quality differences were not obvious, they tended to buy the lower priced of two alternatives. In competitive marketing retailers aimed at displaying an attractive commodity at the lowest possible price. One approach was to buy the lowest priced birds and make them appear attractive to the consumer by skillful processing. Since the latter was not usually a skilled buyer, he need only be shown the more desirable parts of a bird.

The attitude of the Bay area retailers was not dissimilar. The proportion of the "as is" broilers taken by them was twice that of "good." At the same time it was only one-sixth of their own total sales. Almost half were comprised of grade "good" even though they only bought one-tenth of the "good" quality birds sold through the auction. Their contribution to the determination of price at the auction was significant in depth. Limited capacity prevented its ranging over a wide sector of the market.

The Petaluma buyers made 47 per cent of their purchases in grade "good," 42 per cent in "fair," 10.5 per cent in "as is." This differs from a distribution proportionate to the average quantity in each grade by an undue emphasis on grade "fair." Measured in terms of percentage of grade sales through the auction, the purchases of these Petaluma buyers had less influence on the formation of prices in the upper than in the lower quality brackets.

Smaller Buyers.--The last line in table 15, "purchases by unclassified buyers," depicts the share of the market taken by the small or occasional buyers which have not been distinguished individually since they bought less than

interaction from the revelation of his mores would lead to serious misunderstanding. Also there were the two large buyers of used poultry products. Their tastes had not changed to any appreciable extent through the most recent to [illegible] preferences of Southern California as the sole supplier of the order basis, for the better quality birds.

Table 11

Preference of quality grades by types of buyers

10,000 pounds per year each. They numbered 31. Together they bought not more than 5.3 per cent of any one grade and tended to buy less of the better quality and more of the lower than would be proportional to the volume in the respective grades. Some operated poultry businesses on a large scale and were influential in their own localities. None bought large quantities at the auction as a regular practice.

TABLE 15

Percentage of Each Grade of Poultry Sold to Different Buyers

Type of buyer	Good	Fair	As is
Large wholesalers	35.7	20.6	4.3
San Francisco retailers	41.1	49.1	59.6
Bay area retailers	9.6	11.3	19.9
Local hucksters	9.4	13.6	12.4
Unclassified	4.2	5.3	3.7
Total	100.0	100.0	100.0

Another important issue is the extent to which the dealers using the auction were dependent upon it, what it meant to them in terms of their total supply of live birds, and the over-all scope of their business. One indication would be the ease with which they could supply their needs from other sources. Since most wholesalers, and retailers especially, base their business on regular margins from a steady turnover, they must have reliable sources of supply or knowledge of where they could obtain substitutes if necessary. It might be assumed that no difficulties would be incurred in such a district as Petaluma; but most producers are already attached to some existing outlet. Competition with institutionalized contacts of this kind would compel a newcomer to offer more than the going price or better terms in some other respects.

Stability in Buyer Relationships.--Poultry Producers of Central California bought steadily all through the year, partly on a support basis, partly to maintain its own regular outlets which, at this time, were supplied solely from auction purchases. The other large wholesaler purchased more than all the other buyers put together during the initial months of the auction, but suddenly broke off attendance one week before Christmas. It was resumed for a month in mid-January and thenceforward sporadically until May when it ceased altogether. There could be no question as to the relatively minor part played by auction purchases in the activities of this firm which drew from as far afield as the other western states and Oklahoma.

The major San Francisco retailers were stable customers by comparison. The proportion of total auction sales bought by the leader of this group rose steadily through the year; not so much because the volume of this firm's purchases was increased, but that they remained constant while auction sales declined. This concern found the auction a very satisfactory source of supply. It was, in the words of one partner, "an excellent institution because it brought a variety of birds together at one center even if the buyers' requirements were

[illegible] [illegible] per year each. They numbered 21. However they [illegible] [illegible] 5.5 per cent of any one year's sea landed to the lists of the [illegible] [illegible] [illegible]

not met exactly on every occasion." According to the writer's estimates, this important buyer obtained between one-quarter and one-third of his supply from the auction over the twelve-month period.

Three San Francisco retailing concerns buying 100,000-150,000 pounds of poultry at the auction were next in order of importance to the auction. Two bought regularly through the year, missing only a dozen or so auctions. The largest followed suit until August 1949, when its name ceased to appear on the sales records. Up to that point it had been buying 8-10 per cent of its birds at the auction, but had maintained, meanwhile, a wide contact with outside dealers and producers operating on such a scale as to warrant a personal visit. This firm had always tended to buy its younger stock from outside sources.

The second of these city retailers declared that it was convenient for him to visit the auction regularly whether he intended to make definite purchases or not, and that their extent depended entirely on the price advantage between the auction and alternative sources. Evidently, the auction was satisfactory in the main since purchases therefrom were estimated at over 40 per cent of his turnover. Poultry Producers of Central California valued him as a substantial buyer. The third of the larger San Francisco retailers was thought of still more highly in that his bids were associated with many of the highest prices paid at the auction. It is estimated that this concern, which attached great weight to quality, also bought through the auction some 40 per cent of the chickens it sold.

None of the three remaining San Francisco retailers played a significant part at the auction until 1949. Two began to attend regularly only in the second half of the year when they rose to be the sixth and tenth most important buyers. At this time they began to cover it by a complementary alternation in purchasing. Since the two concerns were situated in much the same district of San Francisco and run by people of similar background, it would be surprising if this alternation were purely coincidental. During this period the larger of the two bought 40 per cent of his produce at the auction. In his view it was a very useful institution. Purchases from city wholesalers and country dealers were supplementary. The other probably bought only 16.5 per cent of his poultry turnover through the auction. A representative stated that the firm could not depend upon it because "there were too many other buyers there." They preferred to buy from farmers and hucksters and truck in to San Francisco with their own vehicles.

The final member of this group specialized in heavy colored birds for customers always prepared to pay high prices for rich fat meat. He bought on a basis of suitability for anticipated commitments rather than according to considerations of economy in outlay. His name appeared at one-quarter of the sales. No clear pattern could be discerned in either the distribution of his purchases or the variations in their volume.

Of the other Bay area retailers, one bought very heavily at every auction during the first two quarters, but his purchases declined both in regularity and magnitude during the second half of the year. This indicates a diversion of purchasing power to alternative sources. Three others apparently drew from elsewhere for their retail needs during the earlier part of the auction's life, but turned to it in the winter of 1949. The final buyer in this group made purchases which might have encompassed the bulk of his limited turnover. They were, however, interspersed at irregular intervals through the year and totaled 21 occasions all told.

not met exactly on every occasion." According to the writer's estimates, this important buyer obtained between one-quarter and one-third of his poultry from the auction over the twelve-month period.

Three San Francisco retailing concerns buying [illegible] rounds of poultry at the auction were next in order of importance to the auction. Two [illegible] regularly through the year, missing only a dozen or so meetings. The largest followed suit until August 1949, when its name ceased to appear on the sales records. Up to that point it had been buying 8-10 per cent of the [illegible] at the auction, but had maintained, meanwhile, a wide contact with country dealers and producers operating on such a scale as to warrant a personal visit. This firm had always wanted to buy its poultry stock from outside sources.

The second of these city retailers declared that it was convenient for him to visit the auction regularly, whether he intended to make sufficient purchases or not, and that the extent depended entirely on the price difference between the auction and alternative sources. Evidently, the auction was satisfactory in the main since purchases there were estimated at over 14 per cent of his turnover. Poultry producers of Central California valued him as a consistent buyer. The third of the larger San Francisco retailers was thought of still more highly in that his bids were associated with many of the highest prices paid at the auction. It is estimated that this concern, which [illegible] great weight to quality, also bought through the auction over [illegible] per cent of its [illegible].

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The final member of this group specialized in high-priced lines for customers always prepared to pay high prices for high quality. Its demand, on a basis of suitability for [illegible], [illegible] of economy in [illegible]. His name appeared at [illegible] of the sales. No clear pattern could be discerned in either the distribution of his purchases or the variations in their volume.

Of the other Bay area retailers, one bought very heavily at every auction during the first [illegible] months, but his purchases declined both in regularity and magnitude during the second half of the year. This indicates a diversion of purchasing power to alternative sources. Three others apparently drew upon elsewhere for their main needs during the earlier part of the auction's life, but turned to it in the winter of 1949. The final buyer in this group made purchases which might have encompassed the bulk of his total turnover. They were, however, dispersed at irregular intervals throughout the year and totaled [illegible] all told.

Only one of the Petaluma dealers using the market displayed any semblance of regularity in buying through the auction. This was only for the first quarter of the year when he made large purchases of all types of birds. As has been explained already, these buyers sought a margin between the auction price and that which could be obtained from wholesalers and retailers in the city. Their profit originated in the hazards of the auction method. If the channels to which these dealers served as tributaries were sure of satisfying their requirements at each sale they would commission their own representatives to buy at the auction directly. One of the largest city wholesalers did this for a time. The other three large-scale processing and distributing houses had loose working arrangements with Petaluma dealers to cover the auction and bring in produce suitable for their trade. In return for performing this service, there was a conventional margin of 1½-2 cents per pound. In this way it could be said that the other three large-scale processors and distributors were effectively represented at the auction, even if these indirect purchases did not constitute an important element in their over-all turnover.

The second of these important connecting links with the San Francisco market bought heavily during the period from September through to January 26, after which sale his name disappears from the sales record for six months to appear again, but sporadically, in the late summer. The cessation on practically the same date of purchases by these two "go betweens" and the large San Francisco wholesaler who bought directly meant that, in effect, three major purchasing agencies withdrew their support at one and the same time. It says much for its reputation and usefulness that the auction was able to withstand such a loss and attract other buyers in replacement.

Two local Petaluma concerns bought fairly heavily on occasion during the first half of the twelve-month period under study, but cut their purchases down to insignificance thereafter. One of the largest Sonoma County hucksters bought at the auction sporadically, but undoubtedly regarded it as a competitor. Only the entrepreneur who put culled hens back to lay before reselling them for meat, took significant quantities from the auction all through the year.

Value of Auction to Buyers.--Since they resided in the heart of the producing area and knew most of the poultry men personally, the auction can hardly be said to be performing any valuable function for the local dealers. In no sense were they truly dependent upon its facilities. It might reduce the amount of time spent bargaining. It limited the vendor's control over the terms of the sale. But at the same time it brought the deal out into the open, thus, inviting competition from rival buyers if it should deviate too far from the going price of the day. Thus, irregular buyers, small restaurants and producers, were afforded the satisfaction of knowing that the price paid was not out of line with other transactions in the market area. The final price was attained only because rival buyers were prepared to go as far as the penultimate bid. For others it provided a temporary solution during the period between the termination of set trading arrangements with individuals and the establishment of new contacts and understandings. To many buyers, a real virtue of the auction lay in its continuity. It functioned, in the short run at least, automatically so far as they were concerned. It was a permanent standby if their relations with other suppliers became exacerbated by hard bargaining.

Variation in the level at which the price mechanism equilibrated supply and demand did not hurt buyers so much as producers. The latters' decision to transact business through the auction was less frequent, yet had perforce to

Only one of the Petaluma dealers using the market during any one year or regularly in buying through the auction. There was only one during the quarter of the year when it could be considered a "seasonal" type of trade. It has been explained already, there being economic reasons for auction prices and that which could be obtained from middlemen and auctioneers in the city. There actually was market in the business on the week-end. Of the channels to which these dealers sold as well as with cattle were sale or auction. [illegible] for a time. The other three large-scale processors and distributing houses had in purchase auctions for their press. In return for performing this service, there was a commissional margin of 1-2 cents per pound. In this way it could be said that the other three large-scale processors and markethouses were effectively represented at the auction, even if those indirect purchases did [illegible]

The second of these important connections lies with the San Francisco market. Sales only during the period from October through to January 26, after which sale ceased from the sales report for six months to August again, for reasons unknown, in the late summer. The competition on production the same date of purchases by those two "big businesses" and the large San Francisco [illegible] through directly means that a efficient type market purchasing agency, allowing their support at one and the same time. It was much for the reputation and identities that the auction was able to withstand such a loss and actual other buyers in replacement.

Two local Petaluma concerns bought fairly heavily on occasions during the first half of the twelve-month period under study, but quit their purchases soon to significance thereafter. One of the largest Sonoma County butchers [illegible] the subcommission was put called back to log before reselling them [illegible]

Value of Auction to Buyers.--Since they resided in the heart of the producing area and knew most of the poultry men personally, the auction can hardly be said to be performing any valuable function for the local dealers. In some cases they hardly depended upon its facilities. It might reduce the amount of time spent bargaining. It limited the vendor's control over the terms of the sale. But at the same time it brought the stock out into the open, thus inviting competition from rival buyers. It should deviate too far from the going price of the day. Thus, irregular buyers, small restaurants and producers were attracted the fact effection of knowing that the price paid was not out of line with other transactions in the market area. The final price was actually only because rival buyers were prepared to go as far as the particular bid for order. It created a temporary competition during the period between the [illegible] of supply, contacts and trade relations. To plain buyers a real advantage lay in this continuity. It functioned in the market regular food [illegible] as far as they were concerned. It was a convenient method [illegible]

Variation in the level at which the price mechanism equilibrated supply and demand did not hurt buyers so much as producers. The lowering demand to increase happened through the auction was [illegible] to

be made before the price level of the day had become known. It was more important to them because disastrous if misjudged. The buyer considering himself as a processor, whose income depended on volume of handlings, could at least vary the extent to which he became involved financially after the exact price relationships between grades, classes, and markets had been revealed. He was subject only to the more flexible limits set by the specifically anticipated requirements of a regular clientele. In contrast to dealings with producers and hucksters, transactions on the auction were impersonal. The purchase of produce at low prices did not prejudice relations with the seller directly, nor would abstention from buying, because prices were too high. Buyers could still return to the next auction and meet exactly the same reception as before.

Experienced professional buyers found advantages in bargaining power and economies of scale in handling large standard lots from individual ranches. They were, in consequence, reluctant to give the auction the whole of their attention. Yet, few of them would watch the auction disappear without mixed feelings, appreciating as they did the valuable role it played as an institutional price regulator and supply reserve.

Producer Appraisal

Much of the information handled in this final section of the study will bear on subjects already treated in some detail. In this sense, there will be some repetition. Attention will be focused, however, on a different aspect. Emphasis on the producers' point of view will assist in rounding off the analysis.

Two additional sources of data are drawn upon at this stage. The weekly reports on sales through the auction did not record the names of suppliers. Since, however, they were all members of a cooperative association, their membership numbers were entered in the report in conjunction with each sale. These numbers were coded according to the branch to which the member had been attached for organizational purposes. They constitute a fairly accurate guide as to the approximate geographical origin of the poultry coming into the auction. It can then be analyzed in terms, not only of volume, but of type, quality, and seasonal distribution through the year.

Nevertheless, there are limits to the profitable exploration of ex post data in search of significant relationships. There may be indications that certain events occurred at the same time and were, in all probability, linked together in some way. Yet, the precise bases of the association, the reasons why supplies fell off at a certain time, or why a certain percentage of patrons redirected their business through other outlets, are not determined. The raw statistical data of volume, grade, and price may suggest adequate reasons for these associations. Ultimately, however, there must be some recourse to individual interviews with the persons who actually made the decisions. Otherwise, it remains uncertain which reasons were the real ones, and whether it was not on some altogether different issue that the poultryman transferred his allegiance.

To this end, Poultry Producers submitted the names of poultry growers representing various production, type, and locational points of view. As many were included who had once patronized the auction and ceased to do so as had supported it loyally. The motives of the latter group included both material advantage and belief in the cooperative ideal. All responded readily when invited to describe their attitude towards the poultry auction and to comment freely on its method of operation.

Information gathered in this way was supplemented by discussion with other poultrymen who represented special interests of significance to the study, or who had individual experience of poultry marketing institutions in the Bay area as a whole. The bulk of the supply area was covered. In terms of their average flock, the size of enterprise represented ranged from 18,000 layers down to 2,000-4,000. Some of these producers had considerable experience in representing local or professional opinion. Others had none at all.

Origin of Auction Poultry.--Information as to the source of production of the poultry sold through the Petaluma Auction is presented in table 16. The figures should be related to their locational background. As an assistance to readers, percentages of the total supply have been incorporated in the map appearing on page 3. The territorial divisions employed in the table follow the Association's branch organization code, subject to some condensation. The component areas are listed in the notes at the foot of table 16. Since distance from a suitable market was the factor whose influence these data were expected to illuminate, classification was simplified by the consolidation under one

heading of branches which lay in much the same geographical relationship, vis-a-vis, Petaluma and the Bay cities. Three months, January, May, and September, were selected for summarization in the table in order that seasonal variations in production might be represented at equidistant intervals. The three columns in table 16 were arranged so as to cover, respectively, young birds produced entirely for meat, older fowl which had finished laying, and both types of birds together. The figures are percentages of the total sale.

Just under half the total quantity of poultry handled during the period studied originated in the Petaluma area. The Santa Rosa district was the next most important, followed at some distance by Ukiah and the Sonoma Valley. Rather more than two-thirds of the total quantity sold, however, derived from farmers located not more than 30 miles from the auction. This certainly proves that it was sited in the midst of the main producing area. The first four districts recorded in table 16 may be regarded as the immediate vicinity of the auction and together they supplied 80 per cent of its poultry. A higher proportion of hens (81.6 per cent) than of younger birds (78.9 per cent) originated in this area, but the difference is not very significant.

TABLE 16

Origin of Poultry Sold at Petaluma Auction: Averages of January, May, September, 1949

District	Percentages of total supplies by weight		
	Broilers, fryers, and roasters	Hens	All birds
	per cent		
Petaluma a/	53.5	42.9	48.1
Santa Rosa b/	18.7	20.7	19.6
Sonoma Valley	2.8	10.0	6.4
Napa Valley c/	3.9	8.0	5.9
Ukiah d/	5.0	8.3	6.6
Fort Bragg e/	0.9	2.9	1.9
Sacramento Valley f/	4.1	2.1	3.1
San Joaquin Valley	7.2	---	3.7
Santa Cruz g/	3.1	5.1	4.3
Alameda h/	0.8	---	0.4
Total	100.0	100.0	100.0
Total weight	219,985.0	214,684.0	434,669.0

a/ Petaluma, Novato, Penngrove, Cotati
b/ Santa Rosa, Sebastopol, Healdsburg
c/ Napa, Calistoga, St. Helena
d/ Ukiah, Middletown
e/ Fort Bragg, Eureka, Mendocino
f/ Fairfield, Dixon and Sacramento Valley branches
g/ Santa Cruz, Watsonville, Salinas, Hollister
h/ Hayward mainly

in table 16 were arranged so as to serve, respectively, power farms producing entirely for meat, eggs or fowl which are hatched layers, or both types of birds together. The figures are percentages of the total sale.

Just under half the total quantity of poultry marketed during the period studied originated in the Pomona area. The Santa Rosa district was the next most important, followed at some distance by Ukiah and the Sonoma Valley. Rather more than two-thirds of the total quantity sold, however, derived from farms located not more than 30 miles from the station. This somewhat by proxy that it was quite of the most productive area. The fact that the factors recorded in table 16 may be regarded as the immediate vicinity of the station and consequently supplied 30 per cent of the poultry. A large proportion of them (1.6 per cent) than of younger birds (2.4 per cent) and dressed in this area, but the difference is not very significant.

Origin of Poultry Sold at Petaluma Auction: Averages of January, May, September, 1928.

The second area, for which the auction provided a valuable outlet, was that immediately to the north of Santa Rosa, along either side of the main highway, U. S. 101. Supplies flowed down to Petaluma from this country, not so much because it was an important production center well endowed with feed supplies under conditions especially conducive to poultry rearing, but rather birds were sent down the 80-mile drive from Ukiah because there was no other satisfactory outlet for supplies surplus to local needs. The permanent population in this region was quite small. Development as a tourist area coupled with the general meat shortage during the years following the war had provided an incentive for some large-scale production.

A weak competitive position rendered producers in this area extremely vulnerable to changes in poultry meat price levels. Those broiler and fryer raisers who had outlets such as hotels and restaurants under their control did not fare so badly. Those less fortunate in this respect were being compelled to quit the business about the time this study was entertained. Considerations influencing these Ukiah poultrymen in patronizing Petaluma in spite of the distance were threefold in number.

Primarily, they were attracted by the services the cooperative was able to offer. They bought its feed and earned a good dividend thereby. The branch at Ukiah formed an organizational center able to furnish information and assist in fostering their welfare. The poultry sent in from Fort Bragg was assembled by another cooperative association inspired primarily by men of Finnish extraction. Naturally, its sympathy lay with the Poultry Producers as an outlet for produce rather than with an independent competitor. Most important, perhaps, in bringing these birds down to Petaluma was the provision of convenient transport arrangements with a regular truck service from the Ukiah branch in accordance with producer requirements.

This service was the more appreciated in that without it, poultrymen offering birds situated at some remote ranch were in a very weak bargaining position. One dealer from the Petaluma area was in the habit of following this route. Support for the auction probably gained by appreciation of the degree of monopsonistic pressure he might have exerted if there had been no other practicable outlet. Few of the ranchers in this area would ordinarily be selling so much at any one time as to make it profitable to transport their own birds to a favorable market.

Customary practice previous to the provision of the Poultry Producers' transport service had been either notification of the aforesaid Petaluma dealer when enough birds were ready for sale to constitute a full load, or the development of such an arrangement as that once obtaining in Lake County, where one producer was paid to carry his neighbor's birds to market along with his own, to dispose of them in the best way possible. One such man with a long history in the trade remarked that experience and contact with the buying end brought great advantages. He stated that he was able to secure prices 2-3 cents higher for a fairly regular supply of good poultry than could be obtained for similar stock by another person less well known and accepted in the trade. Of the poultry sold at the auction, 8.5 per cent originated in these northern counties. Hens were more important than younger birds. Of the older categories, 11.2 per cent fall under the Ukiah and Fort Bragg headings; of the younger, only 5.9 per cent.

For the last four areas in the classification in table 16, the auction would not appear to have afforded an obvious convenience. From Santa Cruz and

Alameda counties, birds passed through the main consumption center only to be brought back again from Petaluma, 70 miles to the north. It is difficult to conceive of any long-run economic justification for such procedure. Only an extraordinary imperfection in the market could render it financially profitable in the short run. The most useful purpose it could serve would be that of deterring independent buyers from discriminating against producers situated in localities distant from any sympathetic outlet. In all probability, these shipments were associated with the proposal to establish a second auction at Hayward. The good work such a threat might do would be reinforced by concrete evidence that producers were prepared to take drastic steps in order to place their birds in more favorable channels.

Similar motives may have governed the shipments from the Central Valley. In the San Joaquin Valley other large-scale organizations, such as the big meat packers, undoubtedly offered more convenient sales points for local production. On the other hand with its population of over 100,000, Sacramento itself constituted an important consumption center in the northern valley, likewise Stockton, where Poultry Producers made regular purchases. Prices paid for different grades of poultry at Stockton were published in the Weekly Newsletter and served as a guide to quality, type, and price relationships for the central part of the valley (p. 8, note 1, Fresno prices). Nevertheless, 4.5 per cent of the poultry offered at Petaluma was shipped in from this direction over distances which would involve considerable time in traveling. Such birds must needs have left the ranch either the previous day or very early in the morning. They would suffer the quality losses and shrinkage resulting from a long period of movement and discomfort even though the Association might arrange to have them fed and watered upon arrival.

The bulk of these birds, from the San Joaquin Valley especially, were young colored fryers. They arrived in large batches at irregular intervals. The effect upon the price mechanism at the auction was disruptive.

It was resented by smaller producers who sent in regular supplies from other areas and were dependent on the auction for their income. The sporadic nature of the supply from this source and the fact that colored fryers were usually turned out in regular volume by specialized meat bird raisers suggest that this was not the owners' normal method of disposal. More probably they were reacting against poor returns from regular buyers in the locality of origin. Quality was not notably high in some of these lots. They smack more of a defiant gesture by producers faced with "take it or leave it" offers from their usual outlets than of a genuine attempt to establish a continuing program based on regular marketing the auction way.

Seasonal Variation.--Table 17 shows the proportions of broilers, fryers and roasters, and of hens originating in the various supply areas during three different months in the year. Such data are only available for one year. Thus, it is difficult to distinguish clearly between long-term trends in the attractiveness of the auction to producers in different districts and seasonal fluctuations in the supplies originating from these areas. However, since relatively uniform techniques are pursued throughout the region as a whole, there is no need to attribute much weight to the latter factor. Segregation of the meat bird and laying fowl data adds to the interest of this approach.

Subject to such qualifications, table 17 indicates the process of change in the geographical sources of the poultry meat sold through the auction. Examination of the background of each consignment, and determination of the type and

Similar conditions, [illegible] competition [illegible] brought that again from Petaluma, [illegible] to this market. It is [illegible] of any long-run [illegible] than the [illegible]. Only in [illegible] in the short run. The [illegible]

[illegible]

[illegible] In the San Joaquin Valley other large-scale operations, such as the big [illegible] of [illegible] with its production of over 100,000 [illegible] an important competitive element in the [illegible] formed groups of poultrymen at Stockton [illegible] in the [illegible] and served as a guide to [illegible], and [illegible] for the central part of the valley (p. 8, table 1, [illegible]). [illegible] per cent of the poultry [illegible] would involve [illegible] birds [illegible] early in the [illegible] quality [illegible] arrival.

The bulk of these birds, from the San Joaquin Valley [illegible] upon the price [illegible]:

It was recently [illegible] from [illegible] were [illegible] on the [illegible] for [illegible]. The [illegible] of the supply from [illegible] and [illegible] colored layers were usually [illegible] out in [illegible] volume [illegible] suggest that this was not the [illegible]. [illegible] probably they were [illegible] quality [illegible] with "[illegible]" or "[illegible]" [illegible] from their usual [illegible] of a genuine attempt to establish a [illegible] regular [illegible] the auction was.

Seasonal Variation.--Table 17 shows the proportions of broilers, fryers and roasters, and of hens originating in the various supply areas during three different months in the year. Such data are only available for one year. First, it is difficult to distinguish clearly between long-term trends in the [illegible] of the auction [illegible] in different [illegible] and seasonal [illegible] uniform tendencies are [illegible] as a whole, there is no [illegible] to attribute much weight to the latter factor. [illegible] of the meat bird and laying fowl data adds to the interest of this approach.

Subject to such qualifications, table 17 indicates the process of [illegible]

[illegible]

size of production unit from which the birds were drawn, would be another much longer task. Measurement of changes in the proportion of the total quantity of poultry produced in the areas sold through the auction presents similar difficulties. A dissatisfied meat bird raiser hazarded an estimate of 5-7 per cent. Statistical data concerning total sales in the San Francisco market suggest that it would not exceed 10 per cent.

The most striking feature of table 17 is the increasing degree of emphasis that it places on supplies drawn from the near-by districts, Petaluma, Santa Rosa, and the Sonoma and Napa valleys. All except Santa Rosa raised their percentage of the total sale during the year. The decline in the case of Santa Rosa was far outbalanced by the remarkable increase in the proportion of Petaluma birds from 43.3 to 71.4 per cent. Taking these four districts as one unit, it becomes clear that, whereas in January they were responsible for rather more than two-thirds of total sales, in September their share was 95.1 per cent. The amounts forthcoming from the outer zones were falling away into insignificance.

TABLE 17

Origin of Broilers, Fryers, Roasters and Hens Sold at
Petaluma Live Poultry Auction
January, May, September, 1949

District	Percentages of broilers, fryers, roasters, by weight			Percentages of hens, by weight		
	January	May	September	January	May	September
Petaluma	43.3	62.9	71.4	44.7	46.7	37.6
Santa Rosa	20.5	16.2	16.9	15.3	23.8	22.8
Sonoma Valley	2.6	2.9	3.1	4.0	8.0	18.0
Napa Valley	3.3	5.3	3.7	9.1	9.0	6.0
Ukiah	7.9	1.4	1.3	12.2	7.8	4.9
Fort Bragg	1.3	0.0	1.0	1.0	3.2	4.6
Sacramento Valley	2.4	9.6	0.0	6.1	0.0	0.0
San Joaquin Valley	13.0	0.0	0.0	0.0	0.0	0.0
Santa Cruz	4.7	0.9	2.6	7.6	1.5	6.1
Alameda	1.0	0.8	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total weight 1,000 pounds	123	60	37	73	69	72

Sharply declining prices for meat birds increased the relative burden of transport costs and administrative problems which remained constant per unit of volume. Recognition that an alternative outlet was giving active competition improved producer bargaining power and induced local buyers to offer more attractive prices. The decline from 7.9 to 1.3 per cent in the proportion supplied by Ukiah marks the disappearance from business of specialized meat bird enterprises in that district. Others faced an increased demand from caterers to the tourist trade. Changes in transport arrangements also contributed to the dealers. Some reference has already been made to the large consignments which arrived from the Central Valley from time to time. In January, 13.0 per cent of the supply of young meat birds came from the San Joaquin Valley, yet none at all in the later months. In May, Sacramento Valley producers sent in 9.6 per cent as compared with only 2.4 per cent in January and none at all in September. High temperatures may have been a deterrent to long-distance transportation of live birds in the summer months. However, it is difficult to regard these loads as other than experimental. Observations of a similar character might be made concerning the shipments from Santa Cruz. However, they figure in the column for each of the three months, albeit with sharp variations. Supplies from Alameda never exceeded 1.0 per cent and had ceased by September.

The sharp decline in the actual quantity of broilers, fryers, and roasters marketed during these months is noteworthy. In each case, totals for the latter two were only half those for the month immediately preceding.

The second half of the table presents a picture in complete contrast. The volume of hens going through the auction remained on a par throughout the period. That 73,141 pounds in January should be succeeded by 69,133 pounds in May and 72,140 pounds in September speaks very highly of the auction's service as measured in producer popularity. The material presented in this table confirms the conclusions attained earlier as to the differential success achieved by the Poultry Producers in its efforts to provide a suitable outlet for its members' poultry. The contrast in attitudes between the meat bird specialists and egg producers with old stock for disposal could find no more specific expression.

The relative supply of hens from the Petaluma locality fell in September from a fairly constant level in January and May. Those coming from the Santa Rosa district, immediately adjacent, rose by much the same amount between January and May and fell back only slightly in September. The proportion of Sonoma Valley hens increased remarkably during this period, in response to a more favorable trucking service. Napa Valley contributed the same proportion in the first two months but it had fallen by a third in September. The contribution of these four areas together increased by rather more than 10 per cent.

Fowl consigned from the Ukiah and Lake County areas declined in importance over these months, whereas those from Fort Bragg increased in spite of the 120-mile journey to Petaluma. Sacramento Valley fowl amounted to 6.1 per cent of the total sale in January but made no further appearance. No fowl came up from the San Joaquin Valley. Poultrymen attached to the Santa Cruz branch apparently had good reasons for sending their birds all the way to Petaluma in spite of the marketing paradox it implies. No Alameda hens were sent to Petaluma during these months.

Producer Opinion.--The comments received during the course of this survey were analyzed and classified according to the "interest" they represented and to whether they touched upon fundamental issues in the marketing of poultry

Shortly afterwards pulses for which stamps increased the relative humidity of transmission cables and antiquated wire problems much remained constant per unit of volume. Unexplained that on alternations and it was always easily operation improved pressure increasing power and improved local bypass to other more effective profits. The decline from 7.2 to 1.1 percent in the proportion supplied by which across the difference from because of special and mass third entrances in that district. Others items an increased where from relations to the limited time. Changes in demand. consumers was on. attached to the decrease. Some rail rates has already been made to the large consignments voted received from the General Valley from time to time. In Germany, 1.3 per head of the supply of power must break even. Even the San Joaquin Valley, yet more as not in the lower mark. In 1.4, Economists Valley producers sent to 9.4 per cent as compared with only 2.3 per cent in Germany and more as all in September. Both consumers a rate have been a governments to large-scale the transportation of live birds in the lower rates. However, it is difficult to regard these in as as their to consumers. Conservations of a similar character might be made economically two distances from Santa Cruz. However, they figure as the column formed of the three months, although with sharp variations. Supplies from Alameda never exceeded 1.0 per cent and last caused by 1 pressure.

Is where the one in the cotton of humidity of producers, figures, and producers mentioned during time months in rotation. In such case, but in for the lines two were only half those for the month immediately preceding.

The second half of the table presents a picture in consumers contrasts. The volume of lines (using the sections remaining on a particular) the months the months. That 72.1 pounds in January which be succeeded by 68.1 pounds in May and 72.1 made in September as a very highly of the rail. only serving as measured in frequency pulses. The material presented in this table overtime the co-ordination of the rail rather so to the different rail cross relative by the humidity. The consumers in the effects to provide a suitable rail for the maximum quantity. The consumers in rates in the between the most high speed rates are the producers with old about the suspended coal. find no more economic experiments.

The relative supply of bags from the Santa Joaquin Valley in San Francisco was a matter considered local in January and May. These coming from the Santa Cruz district, than actually in January, road by which has are rates between January and May and fall back only in July in September. The proportion of bagged valley into Santa Cruz certainly brings this trend. In January to be a more economic transport solution. In a Valley corn tried the same reason for in it might not consider but it is taken up a times in September. The contribution of

Coal consumed from the Welsh and Lake County areas combined in August was over three-quarters, whereas from North Sydney increased in months of the three months to January to February. Sacramento Valley Coal arrives to 0.1 per cent. The rates made in rail by lumber no longer appearance. Wheat came by from San Joaquin Valley. Southern matches to the Santa Cruz bright in January and good according rate reduce their bags all the way to Tuolumne in spite of the prices of the bags. In August Lima were sent to Tuolumne in

Price Fluctuations.—The consumers received during the course of the years were slightly not a direct connection to the "increases" may necessarily to a lower being between upon Government issues in the consumer or you may

under contemporary conditions or upon specific details in the operation of the auction.

The most throughtful discussion centered on the economic usefulness of the poultry auction as an institution and the basic problem of whether the cooperative should attempt to handle poultry at all. It was pointed out by both dealers and producers deeply interested in the cooperative movement that relations between Petaluma poultry dealers were those of cut-throat competition. An exceptional concentration of poultry flocks and of the various intermediaries between producer and consumer resulted in very slim margins. The chief reason why cooperative intervention in the poultry business was not successful was that profits were only achieved by dishonesty--short weights, misrepresentation of quality and tricks in bargaining. In conclusion, producers were not so much cheated by dealers in a way that could be ameliorated, but both groups toiled for low rewards. Consumers reaped the benefit if, in lower prices at the retail store, they were more efficiently served than by clearer distinctions in quality.

This approach goes on to note the higher rate of profit from cooperative handling of turkeys where the labor input per bird constitutes a smaller percentage of the final price. In the fresh poultry business, higher administrative and labor costs find no compensation in a greater capacity to hold stocks in storage. Thus, the cooperative suffered competitively from the preference for the New York dressed bird which characterized the San Francisco market. Any hastening of the trend towards the presentation of poultry in cut-up form, packaged in parts or frozen after evisceration, which has gone further in other parts of the country than in the Bay area, would be to its advantage. This method of sale offers less opportunity for "chiselling." The reputable brand would be able to command a higher price. Moreover, the producer's organization would have the same opportunity to surmount temporary booms and recessions in demand prices by holding substantial reserve stocks in storage for sale at the most favorable opportunity that it has had in the marketing of eggs. Thus, it would be able to exercise a far more effective influence on the market than in the present environment. In practice the auctions served primarily to bring price levels into the open and moderate their extremes rather than to stablize them with a substantial measure of control.

Large Uniform Consignments.--A second consideration of a fundamental character was that sale via the auction necessarily involved much double handling. By their very nature, poultry present special problems in physical transference. Each bird must be caught while alive and moved into coops to the accompaniment of much noise, nervous excitement and actual corporeal bruising. This occupies much labor and offers little opportunity for economy no matter how large the lot. In consequence, even those whose trust it was to direct the cooperatives' affairs, felt that large lots of birds originating on a single holding should be transferred directly from the ranch to the killing point by the most direct route and without change of container.

Experience had shown that large quantities of a single type of bird depressed the auction price for that specific category. Average receipts over the whole lot might not exceed the price obtained at the ranch through private bargaining by enough to cover the additional transport and sale charges. It must be remembered that in the Petaluma district the huckster's rate for transportation, etc., from the ranch to San Francisco was often identical with the auction commission. Loss from shrinkage and transportation charges from ranch to auction and auction to processing plant had still to be covered when birds were marketed through this channel.

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Furthermore, the element of risk in marketing by auction increases at a rate more than commensurate with the size of the individual seller's consignment. Not merely does he dispatch his birds for sale without knowing the price he will receive, but the more he sends of one class of bird the more his receipts will be depressed if demand is low. Likewise, there is a greater likelihood that he will spoil even a good market if demand should be strong for a specific quantity only, of his particular type. This latter position frequently occurred. Single cases of misfortune with large consignments were among the most frequent reasons for producers turning away from the auction. They sought other outlets where the price was settled before the conclusion of the sale.

Small Mixed Lots.--On the other hand, all agreed that the auction offered the ideal outlet for small or mixed lots and culled birds. Dealers who would send a truck and pay well for large offerings of uniform quality only accepted the "inconvenient" categories under pressure and at very low prices. The auction, however, provided a center where smaller traders with low cash reserves could pick up just the quantity and type of bird which, after plucking and evisceration, might offer a reasonable return. This enabled them to pay good prices by comparison with those received for larger volumes of regular flocks.

Those who supported the auction were all prepared to recognize that it brought real benefits in elevating standards of marketing behavior. There was little hesitation to sell through an auction operated by an organization with such high prestige and financial backing as Poultry Producers. Its fundamental objective was their own welfare. They had the further assurance that the Poultry Department's buying policy would not permit prices of "good" quality poultry to fall far below the prevailing level for the region. Additional benefits accrued from the publication of price ranges for all the more important grades and classes. They gained still more, perhaps, indirectly, by the very fact of the auction's existence. They received fairer treatment and higher prices from outside buyers precisely because their bargaining power was enhanced by the presence of a convenient alternative outlet.

This leads to the third fundamental issue, the tendency for cooperative intervention in agricultural markets to benefit most, not so much those members who support it by trading regularly through the channels it provides, but those who sell outside it in the more favorable environment resulting from its efforts. This was in the mind of the man who regarded the auction as a very valuable experiment, but one conducted at its supporters' expense. Those who backed it with their custom were holding up an umbrella under which others took shelter without making any contribution towards its support.

Attitudes Toward the Marketing Function.--Conversation with poultrymen confirmed the existence in the Petaluma district of two distinct and contrasting attitudes to marketing procedure. Many of those most attached to the cooperative principle did not wish to concern themselves with marketing at all. Some were preoccupied with their function as specialists in the production of eggs or poultry meat. Others had interests which left them with little time to devote to seeking out and bargaining with prospective buyers. Many simply found haggling distasteful. They looked to the cooperative to take care of this unpleasant side of their business. Most egg producers viewed the disposal of culled layers in this light and would be glad to have them taken off their hands without worry. To men so inclined, the auction service was most welcome. Its most loyal supportors came from these groups.

At the same time there were to be found in the Petaluma area numerous poultrymen whose character and background were quite different. They were never satisfied with a deal until they had fought over the last cent on every bird. Such men liked haggling for its own sake and their basic criticism of the auction stemmed from their inability to retain control over their birds once they had left the ranch. Sale through private bargaining permitted them to observe the process of sale in its entirety and adjust it frequently for maximization of their advantage. Thus, it was pointed out in illustration, that, if a chicken sneezed while waiting to the auction, buyers would make a point of drawing attention to it and would discount the value of all the birds associated with it in the same lot on the grounds that they might also be sick. On the ranch, however, the owner might have an opportunity to detect a sick bird, remove it, and sell the bulk of the birds at a higher price. Similarly, when no good bids were forthcoming one week, the poultryman handling his own sales could hold off for a time until conditions improved. Some processing firms took options on described lots at specific minimum prices with provision for supplementation if the going price should be higher than was expected. In contrast, birds sent to the auction were released at the final bid, however low, unless the owner was prepared to sustain commission and transport charges in bringing them back again.

The grading process at the auction was likewise outside the seller's control, or purported to be. The verdict of the paid auction employee had to be accepted. On the ranch, however, some defense might be made. The owner could resort first to argument, and then refusal to sell at all, knowing well that once the buyer had traveled to the ranch and loaded some birds he would be reluctant to call off the whole transaction. It was always open to the seller to segregate birds which were downgraded by the buyer and sell them elsewhere. Frequently these off grade birds brought a higher price at the auction than would have been averaged by the better birds if all had been sent in together on one day.

"Hard Bargainers".--It was usual for the "hard bargainers" to be in the meat bird section of the industry rather than in egg production. Admittedly, the services afforded by the auction were more in the egg producers' interest than theirs. Nevertheless, their predatory outlook can hardly be reconciled with any form of organized marketing, however carefully it might cater to their needs.

The meat bird producers were legitimately interested in some kind of guaranteed minimum price, since their whole livelihood depended upon the results of their sales. At one time they planned to boycott the auction in the hope of forcing the association to make such a guarantee. The blackboard experiment (page 12) and eventual return to direct purchase by the Poultry Department came partly in response to pressure from this group. Other buyers sometimes made promises regarding future purchases of given lots. Yet, only a few of these poultrymen appreciated the point that the auction was obliged to move all the birds offered on any announced day of sale. On the other hand, dealers pinned down to an agreed price not uncommonly found that "they could only take a certain quantity that week," would "be away on vacation" or made some other excuse to limit their liability if the price had moved against them. Such delays in accepting birds when they were offered were especially inconvenient to broiler and fryer men. Their operations usually revolved around a continuous flow of chicks through a given number of houses from hatchery to market. If the expected capacity could not be vacated at the date planned, then there would be no space for new chicks already ordered.

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Soon after the war, a cooperative society was established in the Petaluma area for the specific purpose of marketing meat birds. The failure of this venture was attributed to the selfish, and perhaps shortsighted, independence of its members. It was designed carefully to match the technical needs of the business. The guaranteed price was a part of its program, in conjunction with quantity regulation at the selling end by means of cold storage, and at the supply end by controlled acceptances of members' produce. They were allotted quotas based on reported purchases at the hatchery. Apart from problems of administration, of quality maintenance in New York dressed birds held in storage, and of discriminatory competition from existing traders, the cooperative found its members unwilling to give the loyal support it needed for success. Instead they strove to sell their own birds at the most favorable time, falsified returns of stocks in hand and were rarely prepared to bear individual short-run losses in the interest of ultimate mutual gain.

Distant Producers.--Those producers remote from consumption centers, who sold their birds through the auction, voiced no general complaint. Their locational position was such as to put them at an extreme disadvantage if they made their own sales bargins. Their criticisms reflected resentment at their helplessness over detailed inequities in price and grade relationships between consignments and overhead sales charges. They felt they could do nothing in correction. In dealings with other traders this feeling might well be even more pronounced.

Psychology and Personalities.--Many poultrymen ceased to sell through the auction for reasons which might be termed purely psychological as opposed to economic in character. It is surprising how easily, for example, a single "bad deal" can outweigh a long period of reasonable returns, be magnified in the mind of the victim and lead to his resolving never again to entrust his birds to the auction. A story is told of one producer who gladly switched to the auction because his previous outlet had persistently downgraded his poultry. Later he returned to this buyer following a quarrel with the auction. On being approached again as to why he had gone back to the man who had cheated him previously, he replied, "He does not do it now because he knows I should send the birds to the auction if he did."

Personalities play a vital part in these psychological relationships. Some producers felt certain that one grader rated their birds more highly than another and were grieved if they could not secure his services. Others spoke of drivers' carelessness, mislabelling and the classification as rejects of birds which they declared to be in quite fair condition. A more important aspect of this was revealed by the attachment of some producers to former members of Poultry Producers' staff. One the most powerful local competing firms derived its strength from direction by men who had become well known and popular among poultrymen by reason of their work on the Association's behalf.

Another interesting human aspect is reflected in the suggestion of one producer that the auction be operated by a neutral organization such as the Farm Bureau. Poultry Producers' Poultry Department would continue meanwhile to pursue its policy of price stabilization by means of a representative bidding on the auction floor. Under this arrangement, it was maintained that he would no longer be following so many conflicting ideals, those of helping producers obtain good prices for their birds, of not driving prices so high that buyers rebelled and made their purchases elsewhere, and of rigid adherence to a strict

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honesty and impartiality throughout. Poultry Producers' representative responsible to so many objectives would face a well-nigh impossible task. Nevertheless, it is difficult to envisage how the introduction of another organization to manage the auction would alter the situation materially. The level of prices at which the Association made its purchases would still be the main concern.

Summary and Conclusions

The poultry auction is still something of a novelty in California and has not yet been accepted. Nevertheless, there are substantial arguments in favor of adopting it as a permanent market institution. The concentration of poultry keeping enterprises in the Petaluma area has long been sufficiently dense to support some organized machinery through which its poultry meat output could be channelled into consumption. Poultry Producers of Central California met this need in respect to eggs but found in the handling of live poultry an exceptionally prickly problem. At the same time, most producers on their own ranches were in a weak bargaining position relative to that of potential buyers armed with superior market information and numerous opportunities for unfair dealing. Any system which incorporated into the sale process concentration at a convenient center, impartial grading, open competitive bidding by buyers with established consumer clienteles and appropriate processing facilities, under the supervision of an organization with high prestige and a genuine interest in its members' welfare, would seem to be an advance on the conditions previously prevailing.

The auction opened with important initial advantages. A large proportion of the poultrymen in the area were members of Poultry Producers of Central California and would be likely to patronize it at least until some evidently more favorable alternative was put in their way. It had the full benefit of the Association's powers and experience in organization and publicity. Elaborate care was taken to satisfy the convenience of potential buyers or sellers subject to the limitation that in some respects there were latent incompatibilities. The hour and day of the week on which sales were held and the purchasing policy followed by the Poultry Department illustrate this very clearly. Producers were able to employ the Association's transportation service to the auction. The attendance of important buyers was secured in spite of the disapproval expressed in some quarters. Risk of unreasonably low prices was limited by the Association's undertaking to buy, on behalf of its own poultry department, as much to counteract the effect on prices of local changes in demand and supply, as to satisfy its own requirements on a commercial basis.

Dissatisfaction with existing market channels found ample demonstration in the large quantities of produce handled by the auction in its first year. A peak volume for a single sale was achieved on January 11, 1949, when 55,000 pounds of poultry passed through. The average sale for the first three months approximated to 28,000 pounds, for the months of September to March 1949, 24,000 pounds and April-September 17,000 pounds. Transactions via the auction fell off through the year both absolutely, and relatively to the total sale of poultry in the state, which stayed on much the same level.

Variation in the quantity of birds offered proved a deterrent to buyers with other important business and a source of loss to those producers who sent in valuable consignments on days when supplies were excessive. Over the hundred auction sales analyzed, the average deviation from the mean was 31 per cent, but the range was much wider. Part of this may be attributed to the practice of holding two auctions each week and could be predicted. Even after correction into weekly averages the mean variation was 24.9 per cent during the months September, 1948, to March, 1949, a figure in which exceptionally severe fluctuations about Thanksgiving and Christmas played a major part. Nevertheless, over-all seasonal fluctuations at Petaluma were less severe than where they were a direct reflection of the "natural" breeding cycle. Poultry sales to

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Variation in the quantity of [illegible] of [illegible] [illegible] a detriment [illegible] with other [illegible] and a source of [illegible] to those [illegible]. [illegible] in [illegible] [illegible] [illegible] were [illegible]. Over the [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] the mean was 31 per cent, but the range was much wider. Part of this may be attributed to the presence of [illegible] [illegible] and could be predicted. Even after [illegible] [illegible] average, the mean [illegible] was 2[illegible] per cent during the months [illegible], 19[illegible], to March, 19[illegible], [illegible] [illegible] [illegible] Thanksgiving and Christmas [illegible] a major part. Nevertheless, [illegible] seasonal [illegible] of [illegible] were less severe than [illegible] were a [illegible] of the "[illegible]" [illegible] cycle. [illegible]

"Central Western Primary Markets" displayed a much wider swing, albeit with a recognized symmetry. Petaluma supplies, in contrast, were governed by the combined operation of two cycles, that of young meat birds leaving the hatcheries, and of older layers held for their egg potential during the period of scarcity in the fall, but culled out severely when their rate of lay declined in the summer.

However, there was no likelihood of the seasonal flow of birds through the auction matching the movement of consumer demand. The index of shipments to San Francisco indicates that the presence of wholesale buyers able to store against consumer requirements was an essential part of a satisfactory market. Performance of such services was not within the capacity of small retailers and hucksters who bought only for current requirements. This same obstacle might conceivably be overcome by careful planning on the part of producers or by direct control over deliveries through a marketing association. On the other hand, the experience of the meat bird cooperative in Sonoma county just after the war is partial evidence of the difficulties associated therewith. It lay within the power of producers themselves at least to moderate this source of friction and loss. The unexpected diversion to the auction of large batches of fryers which were usually handled elsewhere, was responsible for much of the uncertainty attached to this sector of the market. Fluctuations in the supply of Leghorn hens were moderate by comparison with the other classes. In all categories variation was less during summer than winter.

The institution of a grading program at the producer level was one of the most original and praiseworthy steps in the history of poultry marketing in the West despite its recognized limitations. For most unbranded commodities it has been recognized as a prerequisite to intelligent and equitable exchange. A fair bargain concerning the terms on which ownership should be transferred presupposes accepted standards by which to measure relationships of prices and quality in this and other markets. The additional cost of grading can be discounted against reduced allowances for risk on the part of intermediary buyers and enhanced consumer confidence in the end product at the "retail outlet."

Grading practices at Petaluma were scrutinized with a view to detecting any tendency towards undue concentration of birds in the higher grades, and for flexibility in standards with variations in supply. The conditions under which live birds were graded before the auction sale began, impeded the detailed application of United States grades. Those employed by the auction would have been satisfactory if applied evenly throughout the sale. In practice, however, consistency was impeded by the chronic tendency for birds to arrive late, while the sale was actually in progress.

The emphasis on grading at the auction was pre-eminently negative, that of removing the evidently defective from the apparently good. This might be appropriate for the handling of culled layers, but certainly displayed lack of imagination when applied to the younger classes. Setting up a super grade with which producers' names could be associated publicly would have fostered the selection of the best quality birds for this type of open sale and attracted buyers of the caliber most likely to benefit the auction and its supporters.

A comparison with tests conducted at Los Angeles does not indicate that the grade standards required at Petaluma were unduly low. They can be used, therefore, to evaluate the general quality of the birds sold at the auction. Among the older birds it seems to have been as high as could be expected. Most

"[illegible] Primary Markets" [illegible] a [illegible] [illegible] [illegible] a [illegible]. [illegible], in contrast, [illegible] by the [illegible] of two cycles, that [illegible] [illegible], [illegible], [illegible] of other layers [illegible] for [illegible] the period of scarcity in the fall, [illegible] outlined [illegible] [illegible] use of [illegible] in the summer.

[illegible] question [illegible] the movement of [illegible]. [illegible] of [illegible] [illegible] [illegible] that the [illegible] of [illegible] able to [illegible] against [illegible] was an [illegible] part of a [illegible] effort. [illegible] [illegible] not [illegible] the [illegible] of [illegible] [illegible] [illegible] requirements. This [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] control over [illegible] a [illegible] association. On the [illegible] [illegible], the [illegible] of the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] the [illegible] themselves at [illegible] [illegible] [illegible] [illegible]. The [illegible] [illegible] [illegible] of [illegible] of [illegible] were [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] to this sector of the [illegible]. [illegible] in the [illegible] of [illegible] have been [illegible] by comparison with the other [illegible]. In all [illegible] [illegible] the last rather than winter.

The institution of a grazing program at the provincial level was one of the most [illegible] [illegible] in the history of [illegible] [illegible] in the [illegible]. For most [illegible] [illegible] it [illegible] been [illegible] as a [illegible] [illegible] and [illegible] [illegible]. A [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. The [illegible] [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] on the part of [illegible] [illegible] and [illegible] [illegible] [illegible] in the old [illegible] of the "[illegible] [illegible]."

[illegible] [illegible] of [illegible] were [illegible] with [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] of [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], however [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

The [illegible] on [illegible] of the [illegible] was [illegible] of the [illegible] [illegible] [illegible] to [illegible] the [illegible] and [illegible].

[illegible] [illegible], as [illegible] [illegible] be expected. [illegible]

producers sent in the full range of birds culled from a flock of layers. Though some, admittedly, sent birds rejected by other buyers, these did not form a notable proportion of the total sale. It seems to be the general opinion that in the fryer class the contrary obtained. Average quality varied sharply between sales. Unreliability was another factor contributing toward the auction's failure to establish a satisfactory market for this class of bird. Broilers were mostly good.

Sales data for a series of 100 auctions were examined with a view to discovering how far they were indicative of a departure from the tenets of a perfect market. Criteria employed included proportionality between average grade prices and the quality levels they reflected, and approximation to prices for comparable products in the markets after due allowance for transportation and shrinkage.

It appears that equitable relationships of this nature were easily upset by temporary changes in the balance of supply and demand. Maladjustment in this respect has an exaggerated effect on price making under the auction method, since there are no limits on the upward and downward movement of prices beyond those set by open bidding. At this time colored fowl were much sought after and earned a premium over Leghorn hens of 12 cents per pound and over colored fryers of 4-6 cents per pound. The special market for heavy, fat hens was open to even the lowest ranges of quality in this class.

Seasonality in consumption patterns was significant in the substitution of turkey for chicken at Thanksgiving and Christmas and reduced interest in the older birds during summer when fricassee and soup were less in demand.

Some criticism may be directed at the reversal of price grade relationships which occurred occasionally as a result of some fortuitous sequence in sale order. However, the quantities involved were invariably small since the payment of higher prices for lower grade birds was a result of the apparent paucity in offers of the higher grades. Certainly, inferior birds sold better at the auction than they would have done elsewhere. It brought together a wide range of produce and allowed buyers to select more nearly just what they wanted. Sales at the ranch were usually concluded under the assumption that the buyer took the whole flock offered. Thus, a dealer interested only in the better quality birds would himself have to find other outlets for those below standard. At the auction small retailers prepared to process lower grade birds and sell them in their most attractive form, were able to purchase precisely those lots which would bring them the maximum advantage. Average margins between grades were equitable over the range of classes wherever the quantities handled were large enough to absorb the influence of individual loads. It is clear from these data that stability and predictability in all these respects rose in proportion to the volume of produce handled.

Prices at Petaluma followed very much the same pattern as those reported for the wholesale market at San Francisco. For good Leghorn hens the Petaluma average was one cent per pound higher. This is less than the customary margin of 1½-2 cents for transfer between these markets, and reflects the influence of buyers with direct retail outlets. Producers bearing a commission charge of 1½ cents per pound were thus receiving only one-half cent below the San Francisco level.

The San Francisco broiler price ran two cents higher than that averaged at Petaluma incorporating a wider margin for shrinkage and risk. Prices of good fryers were more variable at Petaluma in accordance with fluctuations in supply. Since prices tended to vary inversely with volume, the weighted average fell several cents below that at San Francisco. This also reflects a difference in average quality.

Careful study of figures 8, 9 and 10 suggests that the city price tended to follow the directional changes in Petaluma prices after a lag of several days. The latter were the more sensitive. Demand was a more constant factor than supply and Petaluma was nearer to the supply end of the marketing chain.

Prices obtained at ranch sales were generally based on the same city market quotation less the accepted margin for handling and transfer. Therefore, the same considerations would apply, subject always to this adjustment and to the significant qualification that where sales were negotiated on such terms the crux of the bargain switched to the appropriateness of the quotation, the proportion of the flock thrown out as rejects, and the size of the deduction on this proportion.

Eighteen poultry dealers bought 10,000 pounds or more of poultry at Petaluma during the year under detailed study. But at any one auction only ten to twelve made actual purchases. No one buyer was in a position to exert monopsonistic pressure on prices or to control the bidding at the auction. As a corollary, however, it had not the continued support of any firm with such a capacity for distribution and storage as to absorb, without effecting a significant change in the price level, such exceptional offerings as occured from time to time in the class of colored fryers. The large San Francisco wholesalers bought indirectly through Petaluma hucksters who looked for transfer costs and a profit between the city price and that paid at the auction. Some ten per cent of the volume was taken up by this group of buyers. The bulk of the purchases outside went to Bay area and San Francisco retailers whose wholesale contacts were limited.

The Petaluma hucksters resented the existence of the auction since it performed their own fuction of assembly and concentration for redistribution to specialized buyers. Their concern is evidence of the service offered by the auction to the medium sized wholesaler-retailer and the smaller men in enabling them to select their purchases from a varied presentation of birds arranged in conveniently sized lots.

These buyers tended to have a disproportionate interest in the lower grades and in colored birds. Neither Poultry Producers' poultry department nor the other large wholesale buyer was interested in such produce. They sold again to professional buyers. Inclusion of lower grade produce along with the good would be detected and would detract from their business reputation.

An additional advantage of the auction from the dealer's point of view lay in its continuity, irrespective of the contribution made by the individual buyer. Those who bought there customarily adduced arguments of economic advantage and convenience in so doing. When dealing with private individuals they found that the maintenance of good will and personal contacts constituted a definite limiting factor in determining the pressure advisable in direct bargaining.

The market area from which birds were sent into the auction extended up to 100 miles north, east and south, and reached to the sea on the west. Two-thirds

of the total quantity originated in the Santa Rosa-Petaluma area and this proportion increased during the year. Nevertheless, the service provided by the Association in shipping birds to Petaluma from outlying branches was much appreciated by producers in such districts. They suffered, however, from disadvantages implicit in the system. The auction accepted for sale all deliveries made to its premises. Shipments from sources not contributing regularly tended to upset the balance of supply and demand, to have a depressing influence on prices and, thus, to deter the shippers from repeating the experiment. This happened most often with broilers and colored fryers, types generally sold in uniform lots. Producers agreed that some form of regulatory system to supplement the poultry department's buying policy would have beneficial effects. Yet, the experience of the ill-fated Petaluma meat bird cooperative is evidence of the problems involved in operating such a program.

Two characteristic attitudes of poultrymen towards marketing practice can usefully be distinguished. Men interested primarily in production and lacking the time or inclination for personal assumption of marketing functions were glad to avail themselves of the auction service. Others were reluctant to relax control over their produce until they had haggled over the last cent on individual birds. They switched their custom between different outlets as the particular defects of each received the emphasis of recent patronage. The former tended to be most interested in the egg business, the latter in meat bird production. This is a more fundamental division of opinion than those determined by bitter memories of a single bad deal, by private animosities and attachments to individual personalities. Together with other factors it finds reflection in the maintenance over time of stability in the numbers of older fowl passing through the auction in contrast to the sharp decline evinced in the quantity of fryers.

There are sound economic arguments behind this too. Large lots of young birds of uniform quality are best sold from the ranch. Sale through the auction involved additional handling and transport charges without commensurate increases in buyer satisfaction.

An interesting proposal was that the auction proper should be administered by a neutral organization in whose impartiality both producer and poultry buyer would have confidence. Poultry Producers of Central California would continue to shape its buying policy towards insuring members against unreasonable falls in price so far as was compatible with the need to cover its own costs. It would not undertake the additional obligation of maintaining the auction's popularity with potential buyers. Yet it is difficult to see how this would effect any material change. Any action directed towards raising the price level would drive away other buyers if it precluded their making a profit no matter under whose auspices the auction was conducted.

The auction failed to provide an appropriate outlet for young frying chicken of high value and uniform quality. There are cogent reasons why it would be unlikely to do so even after supply regulation and storage facilities had been established. Small lots, on the other hand, and offgrade birds generally sold best when concentrated at some convenient center and handled by auction in such a way as to attract the retail buyer and those whose requirements included a wide range of types. As stated in the 1949 report on the activities of Poultry Producers of Central California poultry department, "By and large, member consignors have found they can obtain considerably more for offgrade poultry, particularly Leghorn fowl, by selling through the auction than they normally

of the total quantity originated in the Santa Ana-Pomona area and this production increases during the year. Nevertheless, the service provided by the associations in bringing order to pickings from widely scattered areas was much appreciated by growers in such instances. They quickly, however, from differences in profit in the system. The production complaint for sale all-inclusive

to insure the balance of supply the demand, to make a reasonable income on produce sent, to deter the dumping from crowding the expenditure. This is needed most often with broilers and colored types, these generally sold in smaller lots. Independent growers at some form of regulatory system to may benefit

experience of the Illinois and Indiana egg producers is evidence of the problems involved in operating such a program.

The claim, sometimes advanced, of poultrymen towards a more by protected car specially in this way, lies. Egg producers, mainly in production and labor time or in addition for personal consumption of marketing. Chickens were plucked and dressed by the members of the association service. Chickens were refrigerated to relax contracted away, it is presumed, they had bought over the last cent on individual basis. They sometimes, which counts behind, difficult and labor as the marketing for the employers the employers on recent pay-roll; the farmer is to be most profitable in the egg case was, the farmer in most cases procured. This is a more fundamental difficulty of opinion been thought-ful by either formation of a single lot dual, by private arrangements and arrangements

in the marketing over time of reliability in the number of dozen that were by through the summer in comparing to the sharp decline evidence in the quantity of layers.

There are sound economic arrangements involved here too. Large lots of young pullets of good quality are bought and from the farmer. Sale through this auction involved additional handling and transport charges without commensurate increase in buyer satisfaction.

An interesting proposal was that the auction proper should be administered by a marketing organization in which farmer-ship both producer and poultry buyer would have equal place. Poultry producers of Central California would to give the poultry society formal marketing agreement with associate lots in order to fix the price establish the need to cover the own costs. In such unfavorable conditions of maintaining the auction's good will when economical buying. It is difficult to see how this would effect any national course. Any one of the farmers producing the price level would have some other buyers of the marketing to market

The auction market is provide an organization outlet for young fryers of uniform of high value and uniform quality. There are cooperative way it would be truly to be to two, cover cost of marketing and advertising facilities be in such lines. Small lots, on the other hand, and are generally such lots when concerned as some form of cost control are handled by auction in such a way as to admit the small buyer and thus increase individual a wide range of buyers. As stated in the high production the activities of fruitry producers of California, "By and large, manner con-sumer high found may can therefore considerably more for of Pacific poultry, predominantly Leghorn fowl, by selling through the auction than they normally

obtain through other market outlets.... Competition in the bidding for certain lots often resulted in prices considerably above those which the Association or any other buyer would be willing to pay on a given day for poultry of comparable grade. Restrictions on the size of lot were influential in attracting the smaller buyers. Ten or eleven coops comprised the maximum quantity in one sale unit. Many were not so large. The auction provides the most rapid possible method of selling poultry. The regular attendance of San Francisco buyers at the auction is primarily because it enables them to buy a wide variety of poultry in one place in a relatively short period of time."

On March 6, 1951 Poultry Producers of Central California announced that the poultry auction would be suspended. They declared that "the principal reason for suspension of the auction was lack of sufficient volume of poultry to justify the labor and other costs incidental to the activity. The Association's facilities for handling poultry at Petaluma, we believe, are fully ample to handle at least three times the volume of poultry received." The steady downward trend in volume of birds handled per auction sale continued through 1950 and early 1951. During the fall of 1948, 400-500 coops of chickens were offered at sales held twice weekly. Two years later sales conducted once only per week were handling an average of 250 coops. Through November, 1950, average sales declined to 150 coops. They rose again to approximately 184 in December but fell back again to 150 in January and February. Auction sales of live chickens totalled 892,801 pounds in 1950 as against 1,814,152 the previous year.

At these levels of turnover Poultry Producers of Central California experienced difficulty in retaining the services of a good auctioneer and were compelled to allocate the burden of fixed costs over an ever diminishing volume of throughput. The auction continued to cover its costs until the winter of 1950-51. Table 18 relates its financial profitability over the whole period of operation to changes in the volume of business transacted.

TABLE 18

Income and Expenditure--Petaluma Poultry

Auction, 1948-1951

Period	Average monthly volume	Gross margin	Operating expenses	Net margin
	thousand pounds	cents per pound		
1948, July-December	248	1.50	1.00	0.50
1949, January-December	151	1.46	0.86	0.60
1950, January-December	74	1.50	1.34	0.16
1951, January-February	38	1.50	1.65	-0.15

Higher efficiency following the early months of experience permitted the auction to cut its per-unit expenses during 1949 in spite of the decline in business. On this showing, some reduction in service charges might have been

practicable with a view to meeting supplier criticisms.[1/] The Association had, however, reversed its policy of buying only through the auction and offered members the alternative of direct purchase. This contributed materially to the decline in the auction volume. The auction also lost its managerial head at the end of the year (1949), and changed auctioneers shortly afterwards. Continued decline in the volume handled during 1950 had its inevitable effect on costs, and expenses were barely covered. From November 1950, each month showed a loss and the trend of business offered no prospect of recovery.

The financial position of the poultry department had long been an embarassment to the directors of the Association. They did not wish to deprive members of its facilities, yet felt that it could not continue to be subsidized by other activities. Results during 1949 and 1950 were especially unsatisfactory. The loss of $13,262 on the chicken division actually indicated some improvement upon the 1949 deficit of $18,068, but offered no prospect of transformation into a credit balance within the immediate future. On April 6, 1951, it was announced that poultry dressing at both Petaluma and Stockton would cease altogether.

The directors emphasized the weight of strong competition in cutting the margin available between buying and selling prices, a situation which could only be borne if the cooperative had been able to derive economies of scale from a large and regular turnover. They were further discouraged by the government plans for ceiling prices on poultry products. Price control in the face of excess consumer demand during the war had diverted trade from the cooperative, which observed the regulations, to other channels which were not so scrupulous. In any event, the auction process is in direct conflict with the observance of predetermined grade price ceilings.

A fundamental factor in the failure of the auction and one which has received less attention is that of human psychology, a simple loss of confidence. In auctioneering more, perhaps, than in other realms of endeavor, nothing breeds success like success. A leading personality, able simultaneously to "talk up" the auction publicly as well as found it on sound administrative bases, could have made an immense difference. Doubts arising in the minds of the directors, as the volume fell, and a manager who devoted the major part of his attention to other phases of the poultry department's operations contributed to the growth of a negative attitude. As an institution, this particular auction was finally doomed by unfortunate management and too narrow insistence on a dollars and cents profit.

The discontinuance of the weekly auction at Petaluma is a loss to the poultry industry of the Bay region. It may not have handled such a volume and quality of birds as to set the price for the San Francisco market. Nevertheless, to an area interested primarily in egg production it offered sales facilities for which no equally flexible and efficient substitute can easily be envisaged.

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1/ The prevailing view was that this surplus should be retained by the cooperative in anticipation of a deferred payment to patrons.

See Appendix 2 for detailed breakdown of operating costs in 1948 and 1949. Note, for example, the credit on transportation account for 1949.

practicable with a view to raising supplies of [illegible].[1] The Association had, however, [illegible] [illegible] of [illegible] only [illegible] the auction and offered [illegible] the [illegible] of [illegible] purchase. This contribution [illegible] to the decline in the [illegible]. The auction also lost its [illegible] head at the end of the year ([illegible]), and [illegible] auctions [illegible] monthly [illegible]. Continued decline in the volume handled during 1950 and its [illegible] effect on costs, and expenses were barely covered. From November 1, [illegible], each month showed a loss and the trend of business offered no prospect of recovery.

The financial position of the poultry department had long been an embarrassment to the directors of the Association. They [illegible] not wish to deprive members of the facilities, yet [illegible] that it could not continue to be subsidized by other activities. Results during [illegible] and 1950 were especially unsatisfactory. The loss of [illegible] on the [illegible] division actually indicated some improvement upon the [illegible] deficits of [illegible], but offered no promise of transformation into a [illegible] balance within the [illegible]. On April [illegible], [illegible], it was announced that poultry handling at both [illegible] and [illegible] would cease altogether.

The directors emphasized the need of strong and [illegible] in cutting the margin available between buying and selling prices, a situation which could only be borne if the cooperative had been able to [illegible] of some [illegible] large and regular turnover. They were [illegible] by the government's policy [illegible] ceiling prices on [illegible] produce. Price control in the face of excess consumer demand during the war had diverted trade from the cooperative, which observed the regulations, to other channels which were not so scrupulous. In any event, the auction [illegible] in direct conflict with the observance of [illegible].

A fundamental factor in the failure of the auction and one which has [illegible] [illegible] attention [illegible] [illegible], a [illegible] lack of confidence. [illegible] [illegible] were, however, [illegible] other [illegible], notable [illegible] [illegible] [illegible] success. [illegible] [illegible], this [illegible] no "talk up" the auction publicly as [illegible] [illegible] some [illegible] bases, could have made [illegible] difference. [illegible] in the [illegible] of the directors, as the volume fell, and [illegible] the major part of the attention to other phases of the [illegible] operations [illegible] to the growth of a [illegible] [illegible]. As an institution, this particular auction was finally [illegible] by [illegible] and [illegible] on a [illegible].

The [illegible] of the weekly auction at [illegible] is a loss to the poultry industry of [illegible]. It [illegible] not have [illegible] [illegible] to [illegible] the quality of birds [illegible] the [illegible] for the [illegible] market. Nevertheless, to [illegible] [illegible] [illegible] [illegible] [illegible] facilities [illegible] poultry [illegible] [illegible] can [illegible] be envisaged.

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[1] The [illegible], [illegible] [illegible] [illegible] should be [illegible] by the cooperative [illegible] [illegible] a [illegible] [illegible] to [illegible].

See Appendix 2 for detailed breakdown of operating costs in [illegible] and 1949. [illegible], for example, the [illegible] on transportation account for 1935.

Not the least of its valuable services was that of bringing the going price out into the open and of publicizing the conditions under which real sales were transacted. There can be no doubt that, excluding the effect of changes in overall national demand, poultrymen and the smaller retailers are in a much worse position without it. Paradoxically enough, the decline in the volume of poultry passing through the auction has been a measure of the improvement wrought in marketing conditions in the area as a whole. Its presence as an alternative outlet enhanced the bargaining power of individual producers and enabled them to exact terms from outside buyers which would not otherwise have been possible.

Appendix I

United States Grades Specifications
Live Poultry

Quality A or No. 1.

Each bird shall (1) be alert and have bright eyes and other conditions indicating health and vigor;

(2) be well feathered, with feathers showing luster or sheen and quite thoroughly covering all parts of the body;

(3) be of normal physical conformation. It may have a slightly curved breastbone or other slight abnormality in its shape if it does not interfere with the normal distribution of the flesh. A dent in the breastbone shall not exceed one-fourth inch in depth for turkey classes and one-eighth inch in depth for other classes of poultry. The bird may also have a slightly crooked back;

(4) have a well-developed, moderately broad and long breast, well fleshed throughout its entire length, and thighs and legs well covered with flesh according to sex and age. There shall be no appreciable toughening of flesh if tender meat is a class requirement.

(5) have breast, back, hips, and pin bones, in the case of classes of young chickens, showing fat, and in other classes have these parts well covered with fat. A fowl shall not have excessive abdominal fat;

(6) be free of tears, broken bones and external evidence of disease. It may have slight scratches, slight bruises or callouses, any of which must not materially affect its appearance, especially the breast, when feathers are removed. It may also have slightly scaly legs.

Quality B or No. 2.

Each bird shall (1) be of good health and vigor;

(2) be fairly well feathered, that is, some feathers may be lacking on some parts of the body, and there may be a moderate number of pin feathers;

(3) be of normal physical conformation but may have slightly crooked breastbone if it does not seriously interfere with the normal distribution of the flesh. It may have a moderately crooked back and slightly misshapen legs or wings;

(4) be fairly well fleshed in relation to length and depth of the body with all parts fairly well covered with flesh according to age and sex. There shall be no appreciable toughening of flesh if tender meat is a class requirement;

(5) have sufficient coverage of fat to prevent a dark appearance. A hen may have excessive abdominal fat.

(6) be free of tears, broken bones and external evidence of disease, slight breast blisters, heavy callouses and seriously scaly legs.

Quality C or No. 3.

Each bird may (1) be lacking in vigor;

(2) have large numbers of pin feathers over all parts and no feathers on the back;

(3) have crooked breastbone, hunchback and other definite deformities;

(4) have poorly developed, narrow breast and thin covering of flesh over all parts of the bird;

(5) have only small amount of fat in feather tracts and be completely lacking in fat on back and thighs;

(6) have large skin bruises, small flesh bruises and severe breast blisters;

(7) be slightly crippled.

It must be free of broken bones and of external evidence of disease or other conditions which would render it unfit for food.

Reject.

Any bird below C or No. 3, that is, a bird that shows evidence of disease or that has large flesh bruises, severe discolorations, severe injury, emaciation and other similar conditions which will render the bird unfit for human food.

Tolerances.

The recommended tolerance policy would allow that 10 per cent of the birds in a coop should be of the grade immediately below that assigned, except that no rejects should be permitted in No. 3. Tolerances with respect to the quantity of food in the birds' crops are also specified.

(4) be fairly well fleshed in relation to length and depth of the body with all parts fairly well covered with flesh according to age and sex. There shall be no appreciable roughening of flesh if tender meat is a class requirement;

(5) have sufficient coverage of fat to prevent a drawn appearance. A hen may have excessive abdominal fat;

(6) be free of tears, broken bones and external evidence of diseases; slight breast blisters, heavy callosses and scrotously scaly legs;

Quality C or No. 3:

Each bird may (1) be lacking in vigor;

(2) have large numbers of pin feathers over all parts and no feathers on the back;

(3) have crooked breastbone, hunchback and other definite deformities;

(4) have poorly developed, narrow breast and thin covering of flesh over all parts of the bird;

(5) have only small amount of fat in feather tracts and be completely lacking in fat on back and thighs;

(6) have large skin bruises, small flesh bruises and severe breast blisters;

(7) be slightly crippled.

It must be free of broken bones and of external evidence of diseases or other conditions which would render it unfit for food.

Reject:

Any bird below C or No. 3, that is; a bird that shows evidence of disease or that has large flesh bruises, severe discolorations, severe injury, emaciation and other similar conditions which will render the bird unfit for human food.

Tolerances:

The recommended tolerance policy would allow that 10 per cent of the birds in a coop should be of the grade immediately below that assigned; except that no rejects should be permitted in No. 3. Tolerances with respect to the quantity of food in the birds' crops are also specified.

Appendix 2

Operating Expenses--Petaluma Live Poultry Auction,

July 1948-December 1949

Operation	Expense		Proportion of operating margin	
	July-December 1948	January December 1949	July-December 1948	January-December 1949
	cents per pound		per cent	
Auctioneer's fee	.214	.123	14.26	8.43
Labor-receiving	.482	.347	32.14	23.75
-office	.173	.114	15.68	7.84
Travel	.006	.002	.39	.11
Repairs and supplies	.049	.061	3.25	4.17
Utilities	.006	.018	.41	1.21
Rent	.032	.064	2.14	4.40
Depreciation	--	.137	--	9.40
Reserve for credit losses	.016	.025	1.10	1.73
Pro rata general association overhead	.063	.058	4.18	4.01
Total expenses	1.041	.949	69.458	65.05
Less credits-transportation	.002	.058	.11	3.95
-feed charges	.039	.030	2.46	2.03
Net expenses	1.000	.861	66.88	59.07

Appendix 2

Operating Expenses--Petaluma Live Poultry Auction,

July 1948-December 1949

Operation	Expenses		Proportion of operating margin	
	July-December 1948	January-December 1949	July-December 1948	January-December 1949
	cents per pound		per cent	
Auctioneer's fee	.211	.123	11.26	8.45
Labor-receiving	.482	.347	32.14	23.75
Office	.173	.111	15.68	7.61
Travel	.006	.002	.39	.11
Repairs and supplies	.049	.061	3.25	4.17
Utilities	.006	.018	.41	1.21
Rent	.032	.064	2.14	4.40
Depreciation	--	.137	--	9.40
Reserve for credit losses	.016	.025	1.10	1.73
Pro rata general association overhead	.063	.058	4.18	4.02
Total expenses	1.041	.919	69.41	62.05
Less credits-transportation hired charges	.002	.058	.11	3.95
	.039	.030	2.46	2.05
Net expenses	1.000	.861	66.88	59.07

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